JVC

SERVICE MANUAL

MODEL
KD-95A/B/C/E/J/U
STEREO CASSETTE DECK

KD-95 STEREO CASSETTE DECK
JVC
VU
VU

No. 4155
May 1977

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Specifications

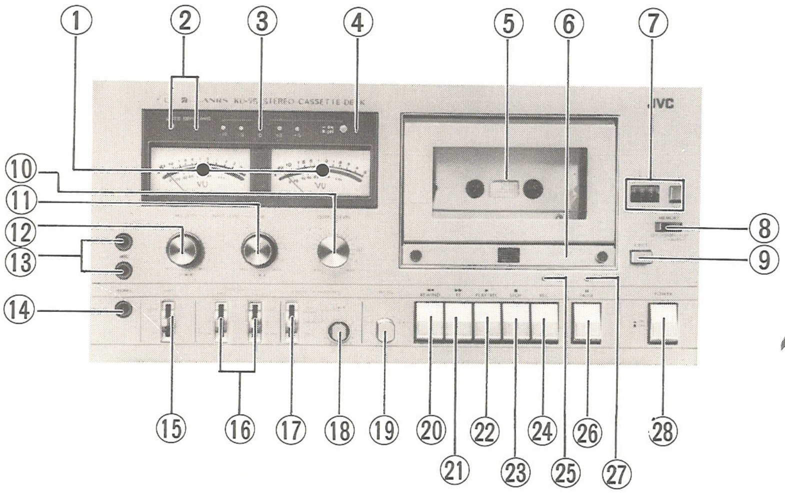
Type : Stereo cassette deck
Track system : 4-track, 2-channel
Cassettes : C-30, C-60, C-90
Frequency response
Chrome *1 : 20–18,000 Hz (Nominal)
30–16,000 Hz (Typical)
SF *2 : 20–17,000 Hz (Nominal)
30–15,000 Hz (Typical)
Surpasses DIN 45500
*1 .... TDK-SA or Equivalent
*2 .... MAXELL-UD or Equivalent
Signal-to-Noise ratio : 56 dB (from peak level, weighted)
The S/N is improved by 5 dB at 1 kHz and by 10 dB above 5 kHz with ANRS on.
Effect of Super ANRS (normal tape)
Improvement of S/N : the same with ANRS
Improvement of frequency response : 0 VU recording; 6 dB at 10 kHz
+5 VU recording; 12 dB at 10 kHz
Improvement of distortion : 0 VU recording; 3% less at 10 kHz
Wow and flutter : 0.05% (WRMS)
±0.2% (DIN 45500)
Crosstalk : 65 dB
Harmonic distortion : 1.2%
Bias : AC bias (95 kHz)
Erasure : AC erasure (95 kHz)
Heads : Recording/playback; Sen-Alloy head
Erasure; Double gap, Ferrite head
Motors : FG servo DC motor x 1
DC motor x 1
Tape speed : 4.8 cm/sec.
Recording time : 2 x 30 minutes with C-60 cassette
Fast forward time : 90 sec. with C-60 cassette
Rewind time : 90 sec. with C-60 cassette
Playback equalizer time constant;
Normal/SF 3180 μs/120 μs
CrO$_2$ 3180 μs/70 μs
Semiconductors : 8 ICs
88 transistors and 71 diodes
Input terminals : MIC jack x 2
Max. sensitivity; 0.2 mV
Matching impedance; 600Ω–10kΩ
Input jack x 2
Min. input level; 78 mV
Input impedance; 100 kΩ
Output terminals : Output jack x 2
Output level; 0–0.5 V
Output impedance; 2–7 kΩ
Matching load impedance;
50 kΩ or more
Headphone jack x 1
Output level; 0.6 mW
Matching impedance; 8 Ω–1 kΩ
DIN socket : Min. input level; 0.1 mV/kΩ
Input impedance; 11 kΩ
Output level; 0–0.5 V
Output impedance; 2–7 kΩ
Matching load impedance;
50 kΩ or more
Power requirement : AC 120 V, 60 Hz (KD-95C/J)
AC 120 V, 220 V, 240 V, 50/60 Hz (KD-95A/B/E)
AC 100 V, 120 V, 220 V, 50/60 Hz (KD-95U)
Power consumption : 35 W
Dimensions : Width ; 16-1/2" (420 mm)
Height; 8-1/4" (211 mm)
Depth ; 12-5/8" (321 mm)
Weight : 24.2 lbs (11.0 kg)

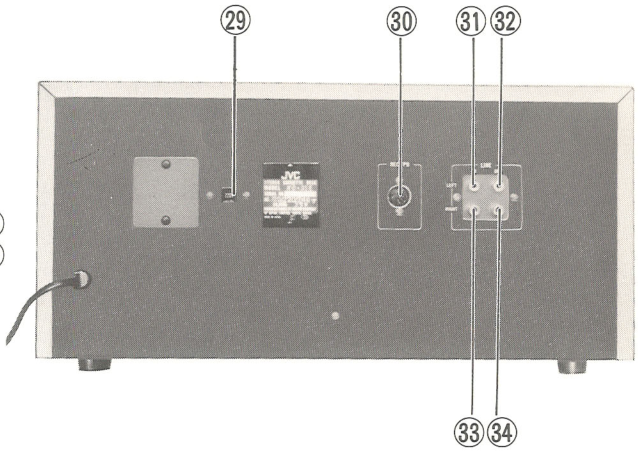
Design and specifications are subject to change without notice.

Features

- Feather-light-touch solenoid-operated control buttons
- Two-motor independent drive (ID) tape transport mechanism
- SEN-ALLOY HEAD
- ANRS, Super ANRS IC (both patent pending) built-in
- Level switchable multi-point peak level indicators (patent pending) with switch
- Recording sensitivity calibrator with built-in 400-Hz oscillator
- High frequency response compensator switch
- Mixing facility
- Vertical, open-view cassette type
- Dual-ball cassette holder
- Air-damped cassette door
- Large VU meters with mirrors
- Memory tape counter
- Automatic timer recording and playback
- Rack mount (BH-95R, optional) adaptable

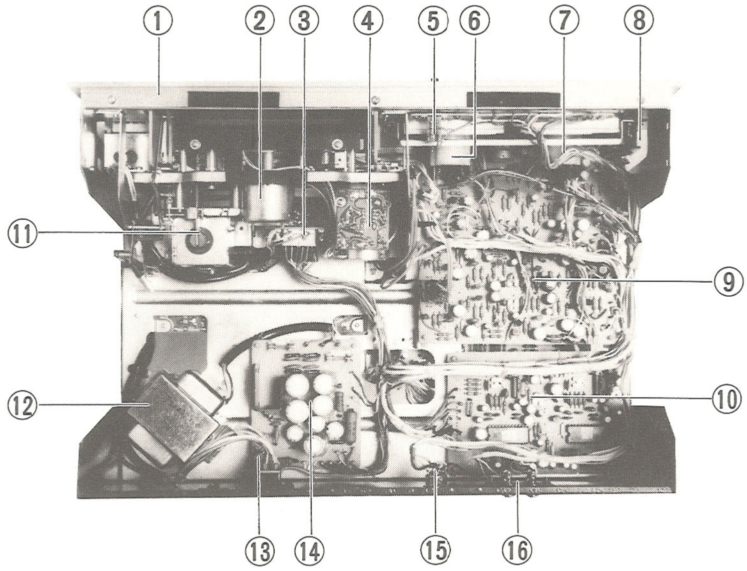
Controls and Connections

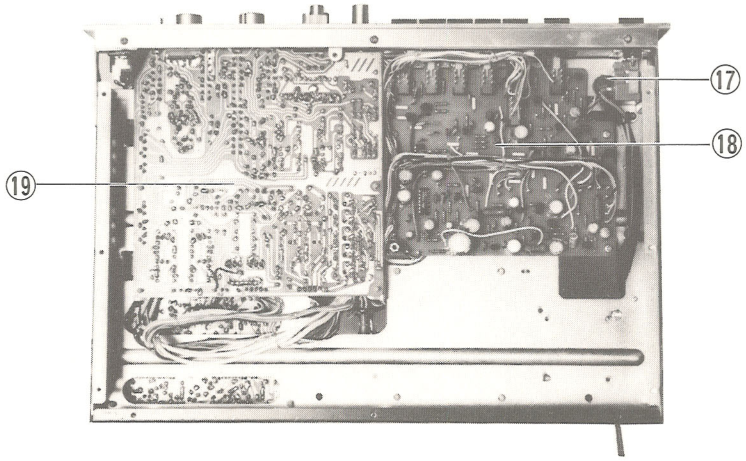




1 Left channel level meter [LEFT]
Right channel level meter [RIGHT]
2 ANRS indicator [ANRS],
Super ANRS indicator [SUPER ANRS]
3 PEAK level indicator
4 Peak level switch
5 Cassette door
6 Head cover
7 Memory counter with reset button [COUNTER]
8 Memory switch
9 Eject button [EJECT]
10 Output level control knob [OUTPUT LEVEL]
11 LINE REC level control knobs
Left channel = inner knob
Right channel = outer ring
12 MIC REC level control knobs
Left channel = inner knob
Right channel = outer ring
13 Microphone jacks L = Left channel
R = Right channel
14 Headphone jack [PHONES]
15 ANRS switch [ANRS]
16 Equalizer switch [EQ], Bias switch [BIAS]
17 Calibration switch [400 Hz CARIBRATION]
18 Calibration level control knobs
Left channel = inner knob
Right channel = outer ring
19 Recording equalizer switch [REC. EQ]
20 Rewind button [◀◀ REWIND]
21 Fast forward button [▶▶ FF]
22 Playback button [▶ PLAY/REC]
23 STOP button [■ STOP]
24 Recording button [REC]
25 Recording indicator
26 Pause button [❚❚ PAUSE]
27 Pause indicator
28 Power switch [POWER]
29 Voltage select switch (KD-95A/B/E/U)
30 DIN socket [REC/PB]
31 Left channel LINE IN terminal
32 Left channel LINE OUT terminal
33 Right channel LINE IN terminal
34 Right channel LINE OUT terminal

Main parts Location





1 Front panel ass'y
2 Reel motor
3 Connect P. circuit board
4 Capstan motor P. circuit board
5 Peak level switch
6 Right channel level meter
7 Left channel level meter
8 MIC & Phones jacks ass'y
9 Pre-amp. P. circuit board
10 Super ANRS P. circuit board
11 Playback solenoid
12 Power transformer
13 Voltage select switch
14 Power P. circuit board
15 DIN socket
16 PIN jacks
17 Power switch
18 Control P. circuit board
19 Main Amp. P. circuit board

Technical Information

1. Recording equalizer

There are many kinds of cassette tapes available on the market today. However, the frequency response of these tapes differs with the type. Roughly grouped, they are normal, SF (super-fidelity), SA/chrome and FeCr (ferrichrome) tapes, which differ in high frequency response and recording and playback sensitivity.

This set is designed to vary the frequency response at high frequencies in order to obtain flat recording and playback response with any type of tape. As shown in Fig. 1, different capacitance and resistance values are inserted into the circuit via the REC EQ switch, thus producing different resonance frequencies and Q's. As a result, the signal current passing through the record head varies as shown in Fig. 2.

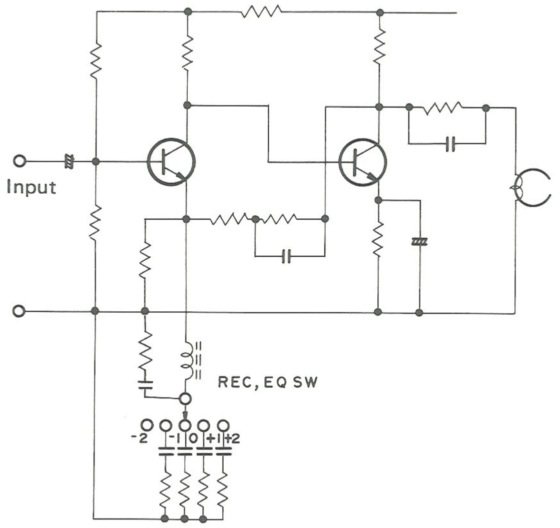
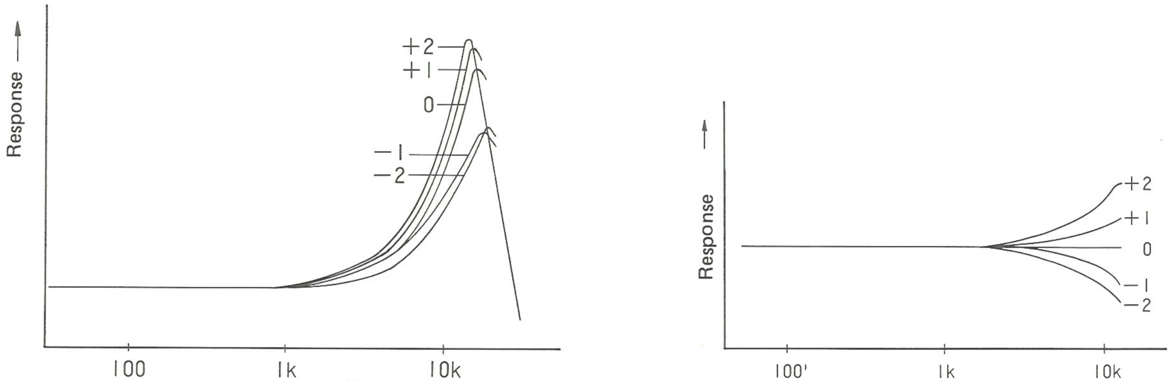


Fig. 1



Frequency (Hz)
Recording signal current

Frequency (Hz)
Recording/playback response
(0 level is reference)

Fig. 2

In this manner, variations in the high frequency response of different tapes can be corrected as described in the following. Moreover, it is also possible to compensate the sound being recorded.

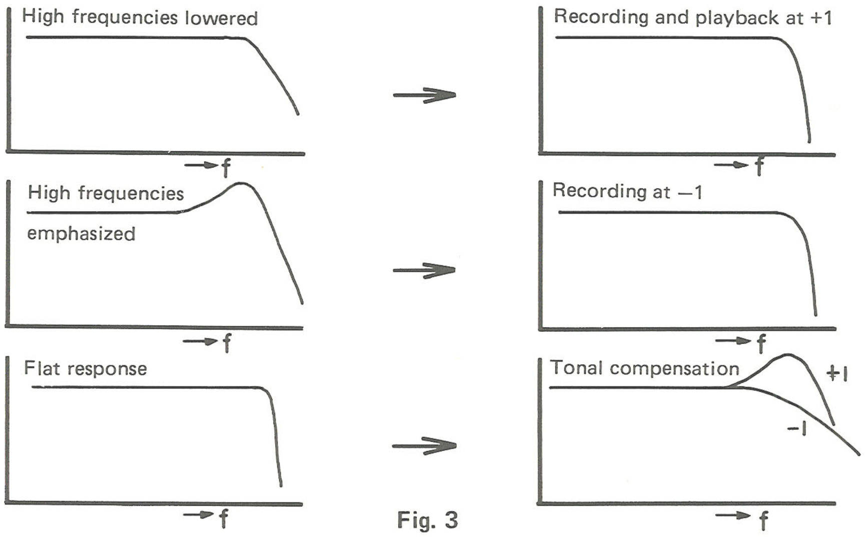


Fig. 3

2. 400-Hz calibration

As previously mentioned, tapes, even those of the same brand, have different recording sensitivities.

These differences in recording sensitivity must be compensated for to ensure a flat response in ANRS recording and playback. This set contains a 400-Hz reference signal generator and variable resistors to vary the recording signal current by ±6 dB from the set point.

How to calibrate

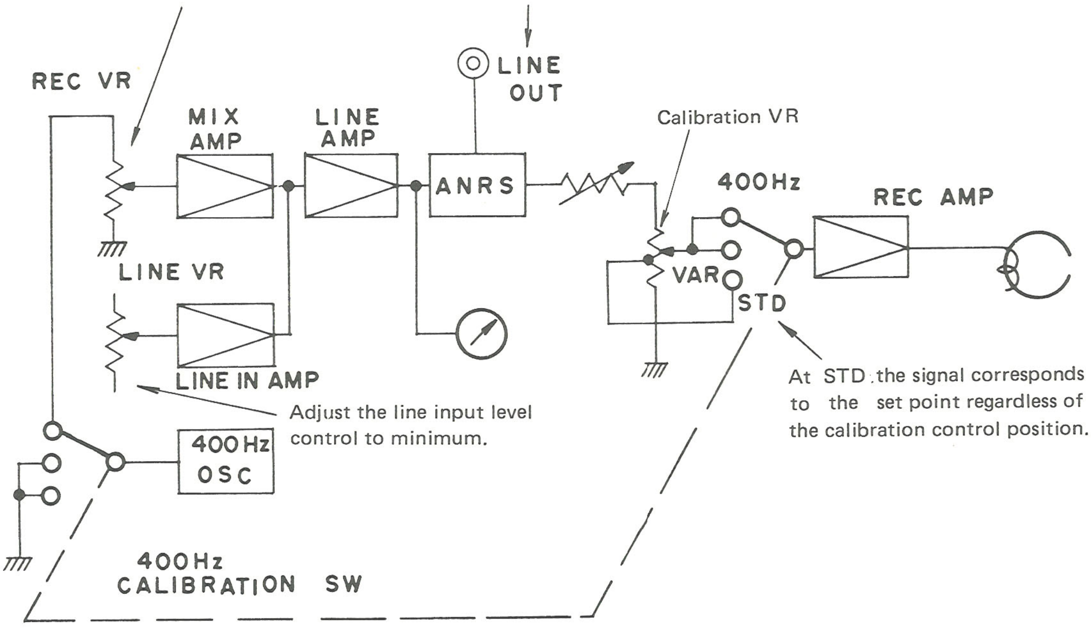
Turn the calibration control VR to "0" and set the calibration switch to the "TEST SIGNAL" position. This action starts the 400-Hz oscillator operation. Set the deck in the record mode and adjust the microphone volume control until the VU meters deflect to 0 VU. Start tape play and check that the playback level corresponds to 0 VU.

If the level is lower than 0 VU, turn the calibration control in the (+) direction and perform recording and playback. If the playback level is higher than 0 VU, turn the calibration control in the (–) direction.

Repeat recording and playback until 0 VU playback is obtained. One division on the calibration control corresponds to a variation of approximately 1.5 dB. Set the calibration switch to "VARIABLE" to record music. With the calibration switch set to the "STD" position, the "0" signal (calibrated value for reference tape) flows regardless of the position of the calibration control.

Adjust to 0 VU.
The microphone input is automatically shorted.

The calibration control has no effect on the LINE OUT level.



Adjust the line input level control to minimum.

At STD the signal corresponds to the set point regardless of the calibration control position.

Fig. 4 **Block Diagram of Recording for Calibration**

3. Electronic switching between recording and playback

The tape transport mechanism is of switch logic design. Therefore, record button operation becomes heavier, compared with other buttons; in normal record/playback select switch movement. Employment of a plunger to move the switch causes heating of the plunger and transformer. To cope with this, the set employes low-cost, highly stable electronic switching utilizing the on-off operation of a transistor.

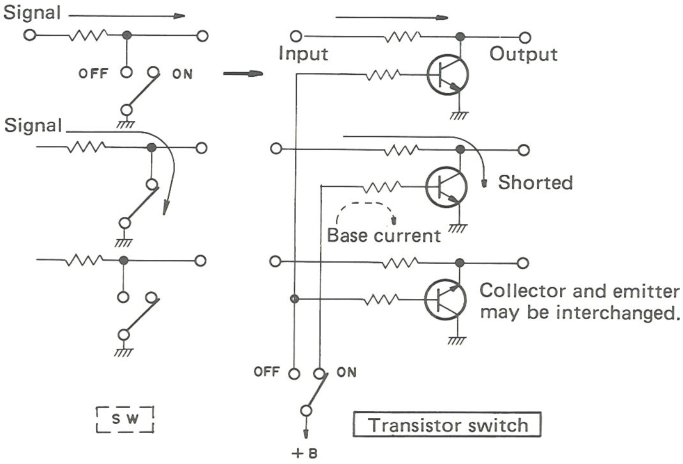

Signal
OFF
ON
Signal
SW
Input
Output
Shorted
Base current
Collector and emitter may be interchanged.
OFF
ON
+B
Transistor switch

Fig. 5

When the base current flows, the switch is ON, and vice versa. Because of the DC base current, the signal component is available if the current is cut by insertion of a capacitor. Thus, a single switch circuit is capable of multiple circuit switching.

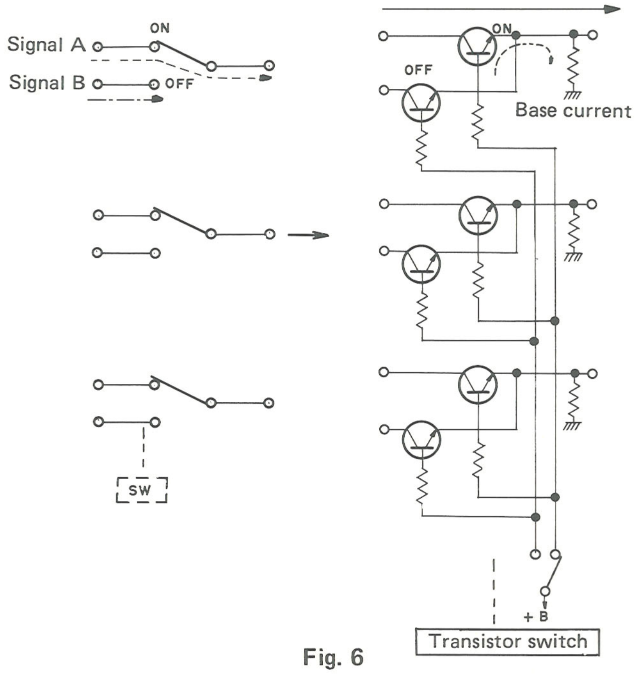

ON
Signal A
Signal B
OFF
ON
OFF
Base current
SW
+B
Transistor switch

Fig. 6

When current flows through the base, the signal is shorted by the transistor.

4. Accidental erasure prevention circuit

This set employs an accidental erasure prevention circuit which differs from the conventional type. With conventional sets, the record button is mechanically blocked so that it cannot be locked when a cassette having the knock-out tab removed is inserted. This kind of device is incompatible with the construction of this set.

The erasure prevention circuit employed in this set electrically prevents entry into the record mode.

Fig. 7 is a block diagram of this circuit.

When the set is placed in the record mode with a cassette having a broken tab, the common terminal of the record proof switch (S705) is grounded. This causes the muting terminal to be grounded and opens the signal circuit, thus making it inoperative. The collector of X702 is then grounded so that the slide base does not operate. The bias oscillator is not energized, and bias is not applied to the head. The base of recording control transistor X720 is grounded, thus preventing the amplifier from entering the record mode.

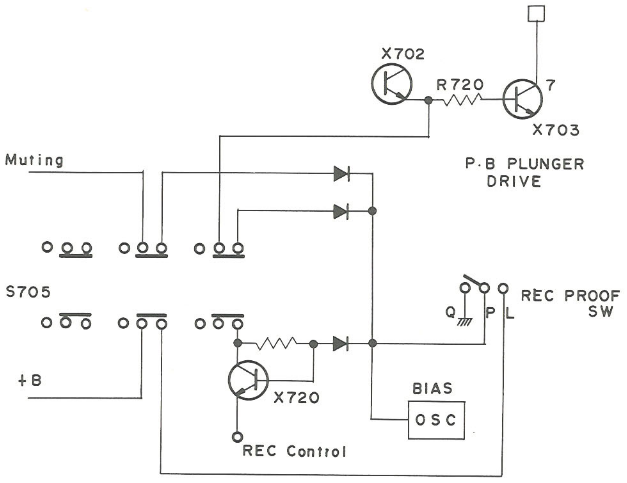

X702
R720
7
X703
P.B PLUNGER DRIVE
Muting
S705
+B
X720
REC Control
REC PROOF SW
Q
P
L
BIAS
OSC

Fig. 7

5. Auto-play circuit

This set employs a TTL IC auto-play circuit.

Auto-play operation is described in the CD-1669 service manual and in the instruction book for this set. Refer to them.

Fig. 8 is a block diagram of the auto-play circuit.

When "999" is reached on the tape counter in the rewind mode, S711 is switched ON, causing +B power to be applied to X719 through S710. X719 is then switched ON, which sets the flip-flop consisting of IC702-1 and -2 so that the output of IC702-2 takes the "H" level. At the same time, voltage is applied to the auto-stop circuit through S710 and the set is placed in the stop mode.

The input of IC702-3 then shifts from H to L level due to the discharge of the capacitor through the resistor. When the input is L level, the output is H level, and the set resumes playback.

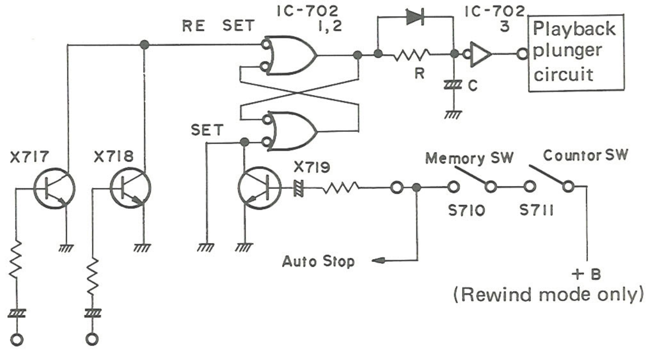
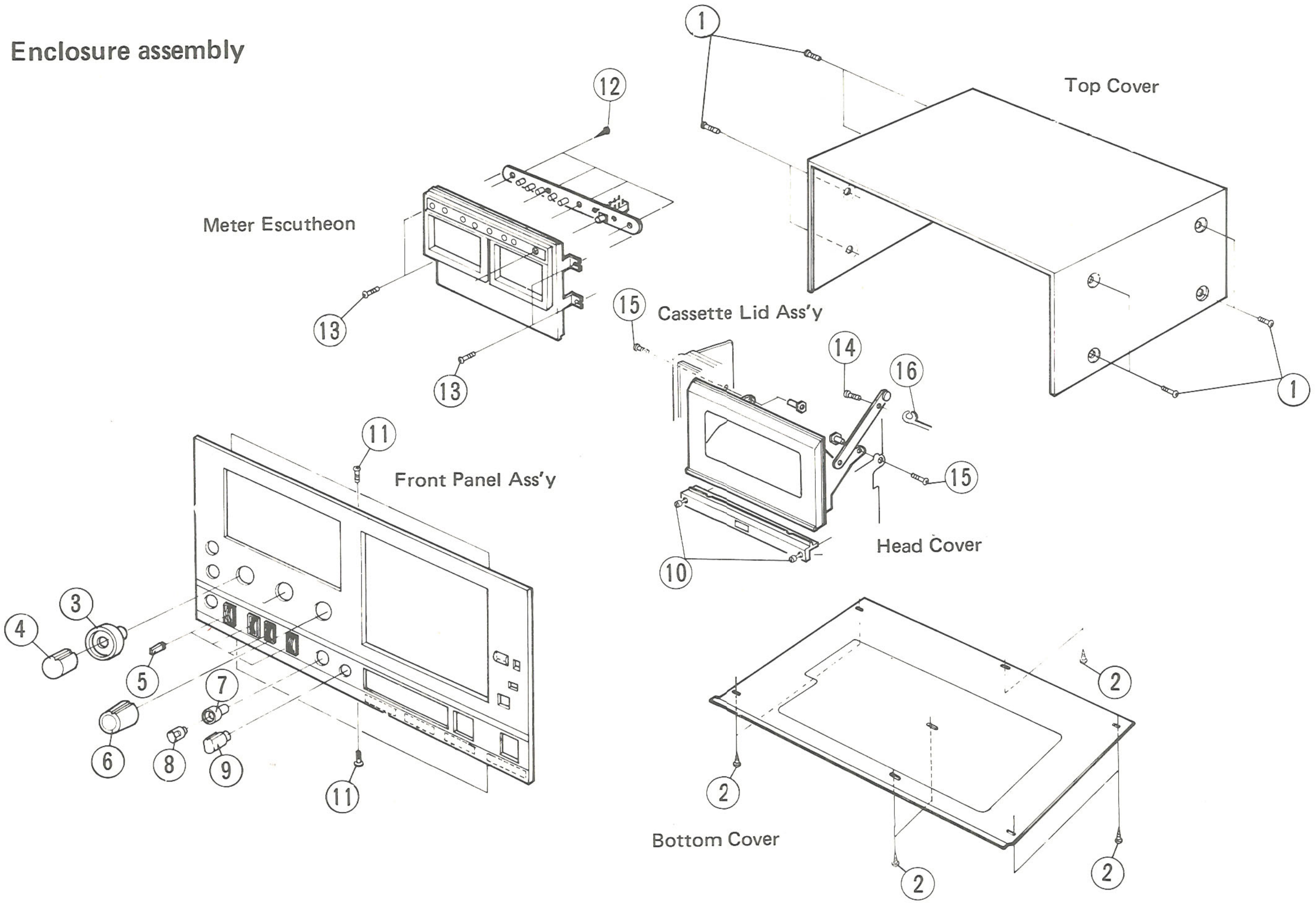

RE SET
IC-702
1, 2
IC-702
3
Playback plunger circuit
R
C
SET
X717
X718
X719
Memory SW
Countor SW
S710
S711
Auto Stop
+B
(Rewind mode only)

Fig. 8

Main Parts Removing

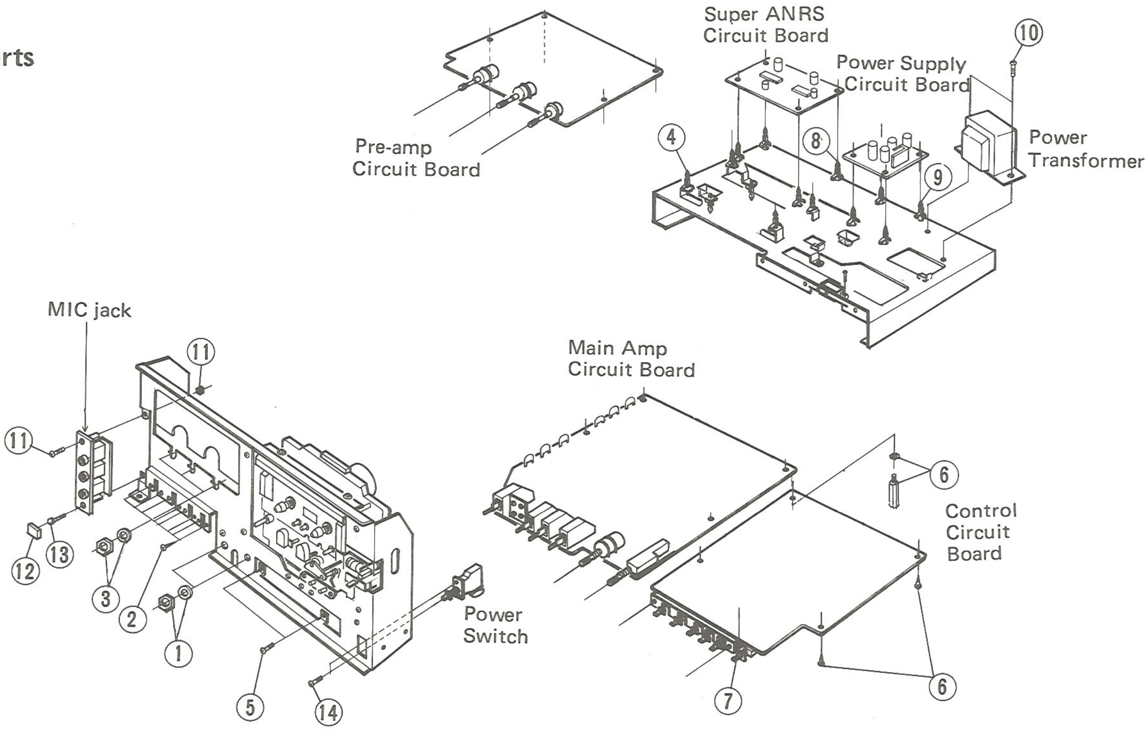
This cassette deck which features a compact design and high performance uses miniature-sized parts which are closely arranged. Use special care when servicing it.

Enclosure assembly


①
Top Cover
⑫
Meter Escutheon
⑬
⑬
⑮
Cassette Lid Ass'y
⑭
⑯
①
⑪
Front Panel Ass'y
⑮
Head Cover
⑩
④
③
⑤
⑦
⑥
⑧
⑨
⑪
②
②
Bottom Cover
②
②

Parts Name	Procedure	Ref. No.	Remarks
Top cover	Remove 4 screws of both sides (L & R).	①	Almost all parts of pre-amp, super ANRS and power circuit board can be checked, when only the top cover is removed.
Bottom cover	Remove 7 screws fastening the bottom cover.	②	Almost all parts of control circuit board and printing pattern side of main amp. circuit board, when the bottom cover is removed.
Knobs	Pull off to front side. Input level knobs ANRS, tape select knobs 400-Hz OSC. select knob Output level control 400-Hz OSC. calibration REC equalizer	 ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨	MIC/DIN input level knobs are as same as LINE input level knobs.
Head cover	Remove 2 screws fastening the head cover.	⑩	When the head cover is removed, the screws can be removed with it.
Front panel ass'y	1. Pull off the knobs. 2. Remove 6 screws fastening the fornt panel. (Top side; 3 pcs., Down side; 3 pcs.) 3. Open the cassette door and loosen a screw ⑭ , then remove the damper lever.	 ⑪ ⑯	When the fornt panel is removed, control buttons can be removed with it.
Meter escutcheon	1. Pull off the push knob. 2. Remove 4 screws fastening the meter escutcheon.	⑫ ⑬	Remove the meter escutchen, after removed the front panel ass'y.
Cassette lid	1. Remove 1 screw of connecting plate. 2. Remove 2 screws fastening the cassette lid to lid escutcheon.	⑭ ⑮	When the cassette lid is removed, the lid cover can be removed with it and can be removed 2 collars at as same.

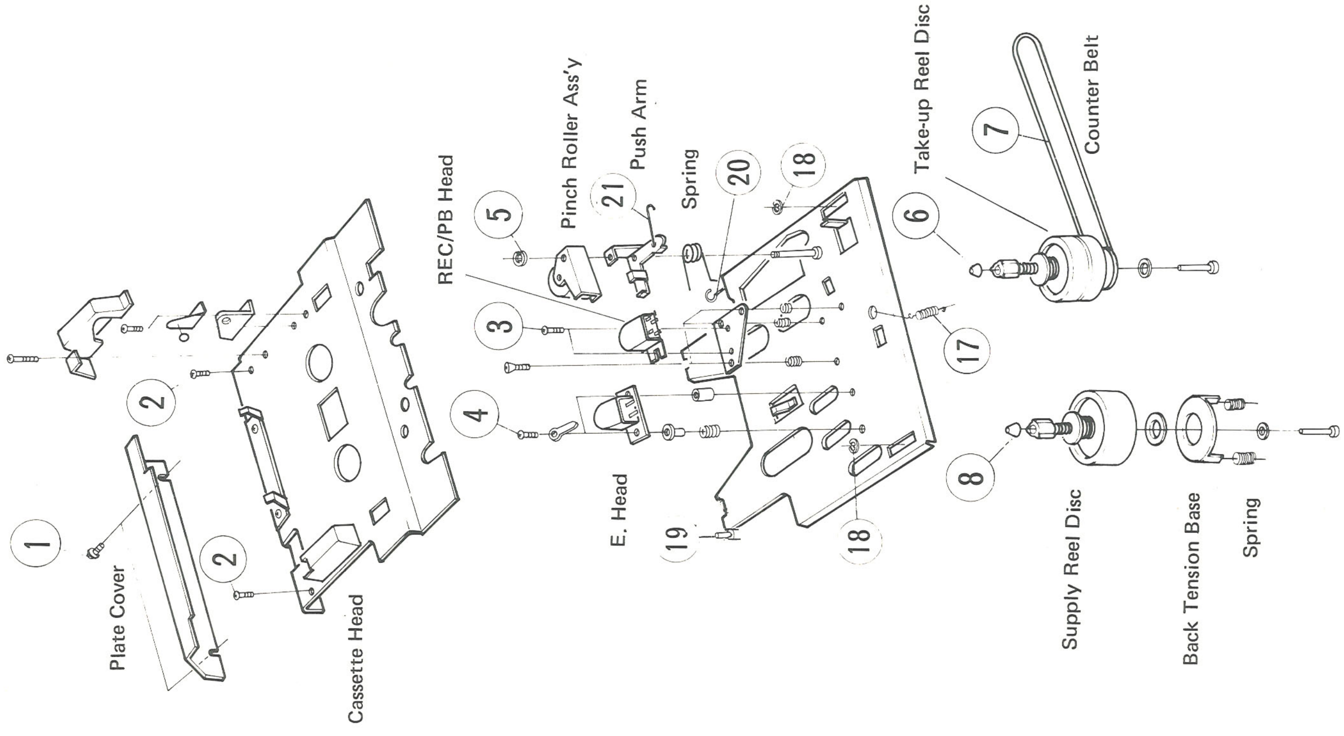
Electrical parts

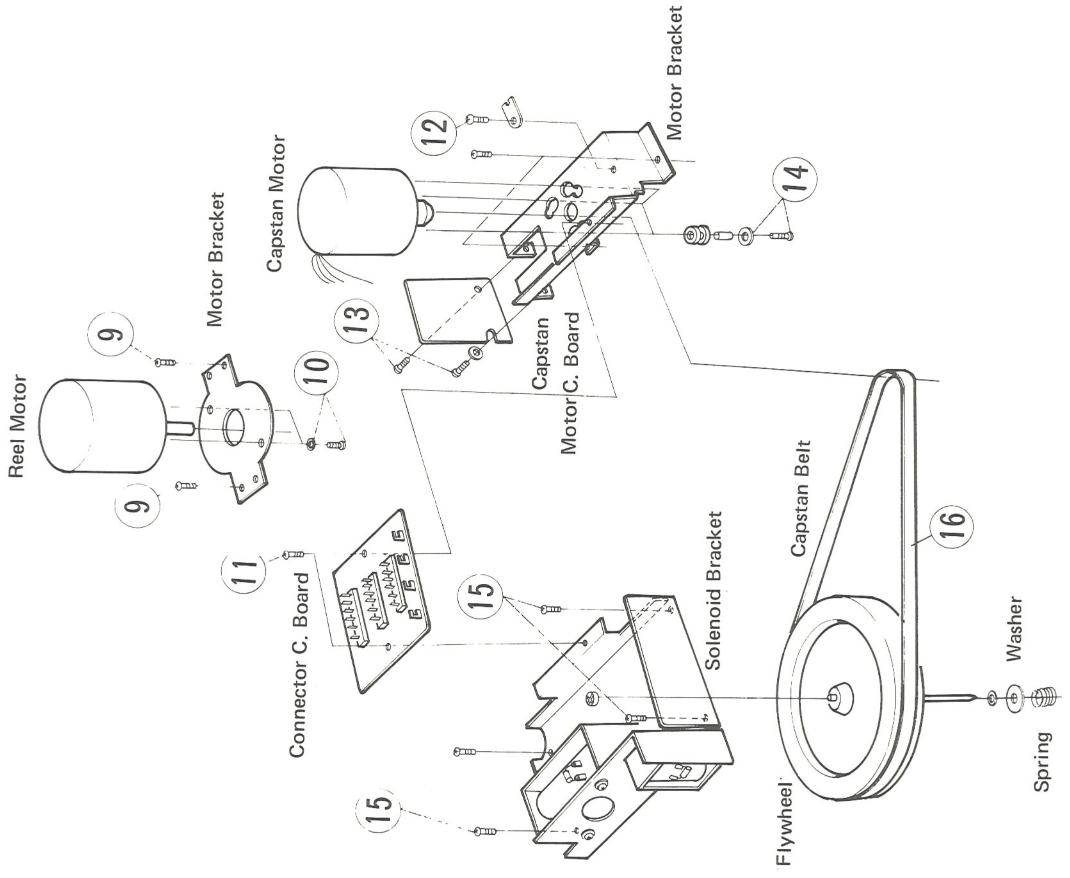

Super ANRS Circuit Board
⑩
Power Supply Circuit Board
Pre-amp Circuit Board
④
⑧
⑨
Power Transformer
MIC jack
⑪
⑪
⑫
⑬
③
②
①
⑤
⑭
Power Switch
Main Amp Circuit Board
⑥
Control Circuit Board
⑦
⑥

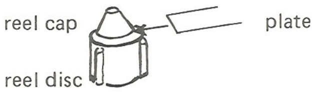
Parts Name	**Procedure**	**Ref. No.**	**Remarks**
Main amp. circuit board	1. Remove 2 nuts and 2 washers of variable resistor shafts (for REC equalizer and 400-Hz Osc.). 2. Remove 4 screws fastening the switches (ANRS, Tape selects = EQ, BIAS and 400-Hz Osc.). 3. Pull off nine connectors (from PG1 to PG9).	① ②	
Pre-amp. circuit board	1. Remove 3 nuts and 3 washers of variable resistor shafts (for Input level = MIC/DIN, LINE and output level controls). 2. Pull off the connector PG10. 3. Remove the pre-amp. circuit board from 4 supporters (TEP344517-01).	③ ④	
Control circuit board	1. Remove 2 screws fastening the switch bracket. 2. Remove 3 screws fastening the control circuit board. 3. Remove spacer (TFH344495-01) and washer (WBS3000N) fastening the control circuit board. 4. Remove 1 screw of solenoid shaft for auto stop, from the switch lever, and pull out the control circuit board.	⑤ ⑥ ⑥ ⑦	When the control circuit board is assembled to amp. chassis, check to move the switch lever at as same the solenoid shaft for auto stop.
Super ANRS circuit board	Remove the super ANRS circuit board from 4 supporters.	⑧	
Power circuit board	Remove the power circuit board from 4 supporters.	⑨	
Power transformer	Remove 2 screws fastening the power transformer.	⑩	
Microphone jack ass'y	1. Above side — Remove 1 screw and nut fastening the microphone jack ass'y. 2. Under side — Remove the cushion (TJN-000354-04). 3. " — Remove the supporter (THF344501-01).	⑪ ⑫ ⑬	
Power switch	Remove 2 screws fastening the power switch to the front bracket.	⑭	

Note: When the P. circuit board assemble to amp. chassis, check enough insertion to the supporter.

Mechanical Parts


1
Plate Cover
2
2
Cassette Head
4
E. Head
3
REC/PB Head
5
Pinch Roller Ass'y
21
Push Arm
Spring
20
18
19
18
17
6
Take-up Reel Disc
7
Counter Belt
8
Supply Reel Disc
Back Tension Base
Spring


Reel Motor
9
9
Motor Bracket
10
11
Connector C. Board
13
Capstan Motor C. Board
Capstan Motor
12
Motor Bracket
14
15
15
Solenoid Bracket
Capstan Belt
16
Flywheel
Washer
Spring

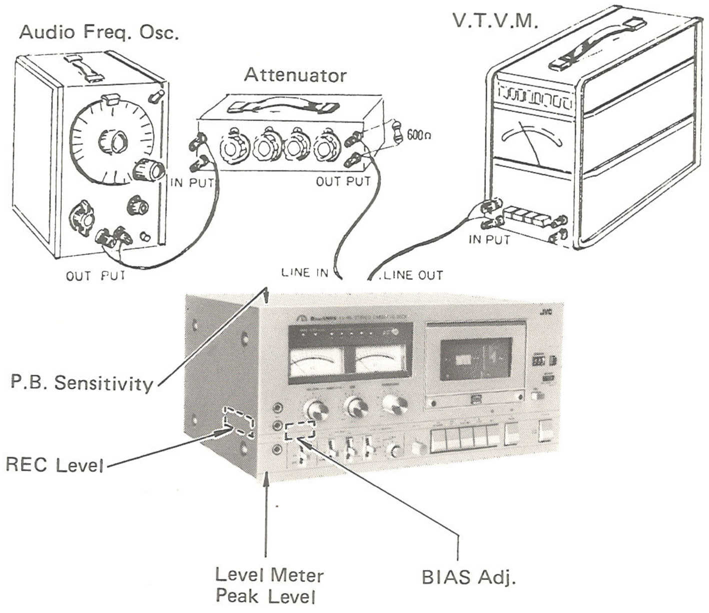
Parts Name	Procedure	Ref. No.	Remarks
Mech. ass'y	1. Remove 4 screws fastening mecha. bracket to front panel. 2. Remove 2 screws fastening mecha. bracket to amp. chassis.		1. Remove mechanical ass'y after removing the head cover and cassette lid ass'y. 2. When mecha. ass'y is removed, the mecha. brackets can be removed with it.
Cassette holder	1. Loosen 2 screws fastening the plate cover. 2. Remove 2 screws fastening the cassette holder.	① ②	When cassette holder is removed, spring plate, pilot lamp, rubber bracket and cassette indicator can be removed with it.
REC/PB head	Remove 2 screws fastening the REC/PB head. (Don't remove 3 screws fastening the head plate.)	③	When the REC/PB head is replaced, adjust azimuth, height and inclination.
Erasing head	Remove 2 screws fastening the head.	④	When the E head is replaced, adjust height.
Pinch roller arm ass'y	Remove "E"-ring holding the pinch roller arm ass'y.	⑤	When the pinch roller arm ass'y is removed, the push arm and spring can be removed at as same.
Slide base	1. Remove a spring. 2. Remove 2 "E"-rings on the slide base. 3. Pull off on the front, then remove the slide base from guide pins of the rear side. 4. Remove play solenoid wire from the slide base cutting corner. 5. Remove the wire on the pinch roller arm ass'y.	⑰ ⑱ ⑲ ⑳ ㉑	
Take-up disc	1. Remove the reel cap that pressing to reel disc shaft. 2. Remove the counter belt, then pull off the disc from its shaft. (Remove a washer at the same time.)	⑥ ⑦	1. Remove the reel cap using the plate as the illustration.  (Don't pick up the reel cap by the plier, etc.) 2. Be careful not to stain the belt.
Supply disc	1. Remove the reel cap that pressing to reel disc shaft. 2. Pull off the disc from the shaft. (Remove the back tension base, spring and washer at the same time)		
Reel motor	1. Remove 2 screws fastening the motor bracket. 2. Remove 2 screws and 2 washers fastening the motor.	⑨ ⑩	
Capstan motor	1. Remove 2 screws fastening the connector circuit board. 2. Remove the capstan belt. 3. Remove a screw fastening the rubber stopper, then turn right direction to the motor. 4. Remove 2 screws the motor circuit board. 5. Remove 3 screws and 3 washers fastening the motor.	⑪ ⑫ ⑬ ⑭	1. When replacing the motor, replace its circuit board together. (For the motor and the circuit board should be adjusted in combination.) 2. Be careful not to stain the capstan belt.
Flywheel	1. Remove 2 screws fastening the connector circuit board. 2. Remove 4 screws fastening the solenoid bracket. 3. Remove the capstan belt. 4. Remove a nylon washer to the capstan shaft. 5. Pull off the flywheel.	⑪ ⑮ ⑯	When the solenoid bracket is removed, 3 solenoids can be removed with it. When the flywheel is replaced, don't forget it insert a nylon washer to its shaft.

Note:
1. Don't dirty, slippery and under run-out the capstan belt and counter belt.
2. Adjust height of the motor pulley, when the capstan belt connect to the flywheel from the motor pulley, so that it will be run in the center of flywheel edge.

Main Adjustments

[I] Equipment and measuring instruments used for adjustment.

1. Electrical adjustment
   1) V.T.V.M. (measuring AC in millivolt)
   2) Audio frequency oscillator (range; 50–20 kHz and output 0 dB with impedance 600 Ω)
   3) Attenuator
   4) Reference tapes for REC/PB
      BASF QP-12 – normal tape
      Maxell UD – SF tape
      TDK SA – chrome tape
      } or equivalent
   5) Reference tapes for playback (JVC Test Tape)
      VTT-658 (for head azimuth adj.)
      VTT-656 (for motor speed, wow flutter adj.)
      VTT-664 (for Reference level 1 kHz)
      VTT-675N (for playback frequency response)
   6) Resistors
      100 Ω (for measurement of the bias current)
      600 Ω (for attenuator matching)
2. Mechanical adjustment
   1) Gauge for checking the head position.
   2) Torque gauge
   3) Blank tape (C-120) for tape running checker



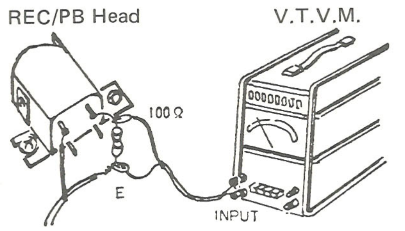
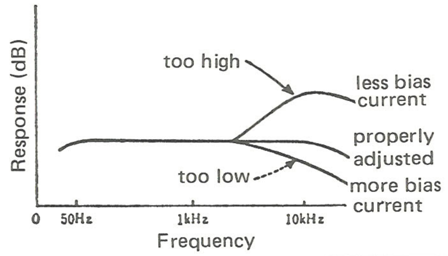
[II] Procedure for electrical adjustments

When you adjust following items, we recommend to you to keep doing step No.

Playback system

Step No.	Item	Procedure	Part	Rating	Remarks
1	Level meter deflection	1. Set the deck in the record mode. 2. Input 1 kHz signals (about −10 dBs) from LINE IN terminals and adjsut LINE IN level controls so that the LINE OUT becomes 0.5 V. 3. Adjust R319 and R419 so that the VU meters indicate zero VU.	Main amp. circuit board TAA344111	0.5 V 0 VU	○ The angle of meter deflection has been factory adjusted, but should be adjusted when parts are replaced. ○ Adjust right and left channel. ○ Set the output level controls at maximum.
2	Peak level	1. Set as same mode at step No. 1 and adjust R23 so that the "0" indicator is lighting, and no lighting at −1 dB from step No. 1 with attenuator. 2. Adjust R21 so that the "−5" indicator is lighting at −5 dB from step (1) with attenuator. 3. Adjust R19 so that the "−10" indicator is lighting at −10 dB and no lighting at −11 dB from step (1) with attenuator. 4. Adjust R25 so that the "+3" indicator is lighting at +3 dB and no lighting at +2 dB from step (1) with attenuator. 5. Adjust R27 so that the "+6" indicator is lighting at +6 dB from step (1) with attenuator.	Main amp. circuit board R23 R21 R19 R25 R27	0 VU −5 VU −10 VU +3 VU +6 VU	
3	Playback sensitivity	1. Set equalizer switch at normal and playback reference tape VTT-664. 2. Adjust R118 and R218 so that the LINE OUT becomes 0.5 V.	Pri amp. circuit board R118, 218	0.5 V	○ Adjust playback sensitivity when REC/PB head are replaced. ○ Set the output level controls at maximum. ○ Make this adjustment after making sure level meter deflection angle is correct.

Recording system – Use BASF QP-12 at normal mode, MAXELL UD at SF mode and TDK SA at chrome mode.

Step No.	Item	Procedure	Part	Rating	Remarks
4	Check of REC/PB frequency response	Input 1 kHz (0 VU –20 dB) signals from LINE IN terminals make recording the blank tape, and then record 50 Hz, 10-kHz signals. When its tape playback, 50-Hz or 10 kHz output level becomes in rating at comparison 1 kHz output level as the reference frequency. (as basic thought, 1 kHz, 50 Hz and 10 kHz output level become the flat as same frequency response).	SF C327, 427 Chrome C328, 428	reference frequency SF 50 Hz 10 kHz Chrome 50 Hz 10 kHz	○ Set REC equalizer control at "0" position. ○ Adjust C327 and C427 for bias trimmer at normal and chrome mode, L channel and R channel.
5	Bias current	1. Set the deck in record mode. 2. With no signal, connect a 100 Ω resistor to the ground side (at record mode) of the head wire. Connect the V.T.V.M. across the resistor and set the BIAS SW at chrome or normal. 3. Disconnect a 100 Ω resistor, and V.T.V.M. wire. Input 1 kHz 20 dB, –2 dB signal from LINE IN terminals make recording the blank tape, and then record 10 kHz signal. When its tape playback, adjust C328, 428 (normal = C327, 427) so that 10 kHz output level become rating at comparison 1 kHz output level as ±0 dB. Repeat its procedure till at frequency response become ±0 dB. frequency responce at 10 kHz too high – less bias current. frequency response at 10 kHz too low – more bias current.	Chrome C328, 428 SF C327, 427	Chrome 53 mV SF 35 mV	○ Set REC equalizer control at "0" position. ○ If the meter pointer moving at PB mode when your finger touch a head wire, its wire is ground side at REC mode. (Because the head wire of 2 head type become opposite polarity at playback and at record.)
					
6	Recording signal current	1. Set the deck in the recording mode. 2. Input 1 kHz (–10 dB) signal from LINE IN terminals, and adjust the LINE IN level control so that the LINE OUT becomes 0.5 V. 3. When recording at 0 VU, then its tape playback. Adjust semi-fixed resistor so that the LINE OUT becomes 0.5 V. (Repeat this procedure for adjustment of response.)	Main amp. circuit board Normal R321, 421 SF R322, 422 Chrome R323, 423	LINE OUT 0.5 V	○ Adjust it when head or other parts are replaced. ○ Adjust this procedure, after adjusted step No. 1 – 5. ○ Set EQ and BIAS switches according to the type of the tape used. ○ Adjust semi-fixed resistor so that output level of L channel minus one of R channel is less than ±1 dB at normal, SF and chrome mode.

Step No.	Item	Procedure	Part	Rating	Remarks
7	Super ANRS	1. Disconnect the soldering position BIAS CUT of main circuit board so that oscillator does not operate.	Main Amp. circuit board TAA344111		
		2. Set the deck to the record mode.			
		3. Input 1 kHz 0 dBs signals from LINE IN terminals, adjust LINE IN level control so that the LINE CUT become –1 dBs.	Super ANRS circuit board TAA344208	–1 dBs	Set the VU meter pointers to become Cal.
		4. Connect the V.T.V.M. to [8] [9] pin on Super ANRS circuit board.			
		5. With input 1 kHz –40 dB signals, adjust VRA01 and VRB01 so that the [8] [9] levels become 5.5 dB at ANRS switch turned ON from OFF.	[9] VRA01 [8] VRB01	+5.5 dB	
		6. Input 5 kHz –20 dB signal, adjust VRA02 and VRB02 so that the [8] [9] levels become +3.5 dB at ANRS switch turned ON from OFF.	[9] VRA02 [8] VRB02	+3.5 dB	
		7. Input 1 kHz signal, check the LINE OUT level so that it becomes constant –1 dBs (less than ±0.5 dB) when ANRS switch turned OFF from ON.		–1 dBs ±0.5 dB	
		8. Turn ANRS switch in "Super" position when input 10 kHz signal from LINE IN. Check LINE OUT levels so that it become –6 dB down.		6 dB	
		9. Playback the reference tape VTT-664 and check output level so that it less than ±1 dB when ANRS switch is turned OFF from ON.			
		10. Connect the position BIAS CUT of disconnected in step 1.			

[III] How to repair electrically

When you repair pre-amp. or control printed circuit board, use test points for checking voltage on parts assembly side of circuit board.

1) Pre-amp. circuit board

Test point No.	Checking section	Level (AC)
TP1	Playback level of L channel	–26 dBs at Ref. (playback)
TP2	" R channel	"
TP3	Pre-amp. output level (L)	–29 dBs at Ref. (REC/PB)
TP4	" (R)	"
TP5	MIC and LINE amp. (L)	–29 dBs at Ref. (Recording)
TP6	" (R)	"
TP7	MIC amp. (L)	–31.5 dBs at Ref. (Recording)
TP8	" (R)	"
TP9	LINE amp. (L)	–24 dBs at Ref. (Recording)
TP10	" (R)	"

*Ref. shows the LINE OUT level that it becomes 0.5 V at 0 VU with input 1 kHz, using V.T.V.M.

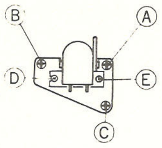
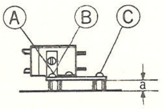
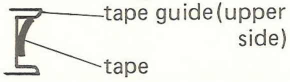
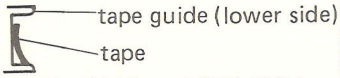
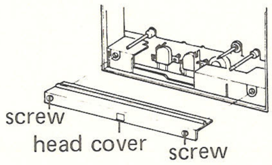
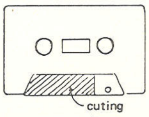
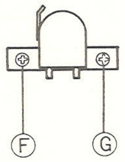
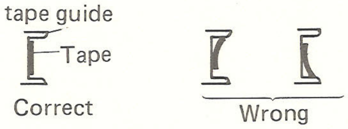
2) Control amp. circuit board

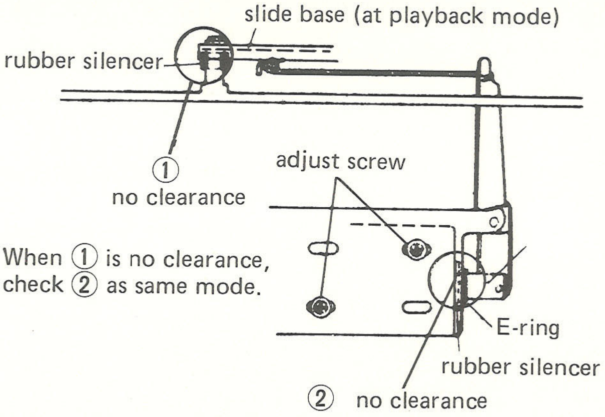
Test point No.	Checking section	Level (DC voltage)
TP1	at playback mode	About 4 V at depress playback button
TP2	"	About 0.7 V "
TP3	at Auto play mode	About 4 V at auto play
TP4	at playback mode	About 13 V at play or auto play mode
TP5	Brake	About 0.7 V (FF, REW, PLAY, AUTO PLAY)
TP6	"	About 18 V (")
TP7	Pause	About 0.7 V (PLAY, PAUSE)
TP8	"	About 17 V (")

Level voltage shows to use tester or V.T.V.M. at normal operation.

3) For other electrical failures, check the unit in the same manner as other cassette decks.

[IV] Mechanical adjustment

Item	Procedure	Part	Rating	Remarks
REC/PB head (Azimuth and inclination)  	1. Adjust screws ⒶⒷⒸ so that the "a" clearance becomes 5 mm. 2. Playback the test tape C-120 (front cutted cassette) and turn the screw Ⓐ so that the tape may run in the center of the guide. 1) If the tape touch the upper guide, loosen the screw Ⓐ.  2) If the tape touche the lower guide, fasten the screw Ⓐ.  3. Connect the V.T.V.M. to LINE OUT terminals (or REC/PB socket). 4. If output levels are unbalance at L to R channel, adjust screw Ⓒ for inclination of the head. 1) If R channel output level is less, loosen the screw Ⓒ. 2) If L channel output level is less, fasten the screw Ⓒ. 5. Play back the reference tape VTT-658, adjust screw Ⓑ so that output level becomes maximum. 6. After adjustment the screws ⒶⒷⒸ should be locked with bond.	screw ⒶⒷⒸ screw Ⓐ screw Ⓒ screw Ⓑ	5 mm max.	1. If you need adjust or replace REC/PB head, you can be it to remove only the head cover. (Loosen 2 screws fastening the head cover.)  2. Test tape (C-120)  3. If either of the REC/PB head show low performance because of wear, broken wire or excessive magnetization, it should be replaced, and then you must adjust the head azimuth, playback sensitivity, REC bias current, and REC signal current. (See electrical adjustment) 4. When REC/PB head replace, remove 2 screws Ⓓ, Ⓔ fastening the head. After replace the head, screws ⒹⒺ should be locked with a bond.
Erase head (Height) 	Adjust screw Ⓕ as same method step 2 in REC/PB head adjustment. 	screw Ⓕ		When erase head replace, should be adjust height of one.

Item	Procedure	Part	Rating	Remarks
Position of playback solenoid	1. Loosen 3 screws fastening the playback solenoid. 2. Do holding the slide base at playback mode ①. 3. At holding mode 1 , fasten 3 screws the playback solenoid at it mode ② that the rubber silencer on solenoid shaft is no clearance between the solenoid.	When the playback solenoid adjust, should be adjust the pause solenoid (see pause solenoid item).  slide base (at playback mode) rubber silencer ① no clearance adjust screw When ① is no clearance, check ② as same mode. E-ring rubber silencer ② no clearance		
Brake solenoid	Remove 2 screws fastening the brake solenoid, and move it position for adjustment.			
Pause solenoid	Remove 3 screws fastening the pause solenoid and move it position for adjustment. (Hold 0.5 mm clearance to the capstan shaft between the pinch roller at pause mode.)		0.5 mm	
Motor speed	1. Connect the counter meter to the LINE OUT terminals. 2. Play back reference tape VTT-656 (3000 Hz). 3. Adjust the semi-fixed resistor on the motor circuit board so that the speed is 3000 Hz ±1.5%.		3000 Hz ± 1.5% (2955 ~ 3045 Hz)	If the wow flutter meter built-in the counter meter, connect its INPUT terminals.
Take-up torque	Measure by the torque measure cassette or the torque gauge tool at the playback mode.		40–70 gr-cm	(If not) 1. Clean the capstan belt, rubber rim of idler and rubber rim of the take-up disk. 2. Replace the idler arm of the take-up and spring.
Fast forward torque			70 gr-cm or more	(If not) 1. Clean the capstan belt, rubber rim of the idler, motor pulley rim of the flywheel. 2. Replace the main belt, idler, and reel disc ass'y.
REW torque	Measure as same method at REW mode.		70 gr-cm or more	(If not) 1. Clean the capstan belt, idler and rubber rim of it, and motor pulley, rim of the flywheel. 2. Replace the reel disk.
Auto-stop mechanism	Loosen 2 screws fastening the solenoid and move it position for adjustment.			Check the counter special plate for Cds lamp properly operation.
Door brake	Loosen a screw fastening the spring.			(If not) Clean brake pipe, brake shaft and "O"-ring and feed grease them. (GB-TS1)

Repair of Wow Flutter

If wow and flutter increase, check the following points. If there is defect in revolving parts, the wow and flutter generated will increase in proportion to the number of revolutions.

Play a 3000 Hz test tape, and defective part can be detected from the sound.

Section	Trouble	Repair
Capstan and flywheel	Capstan shaft has excessive run-out. Flywheel turns heavily. (shaft seisure, thrust play, etc.)	Replace flywheel. Clean the capstan shaft and the groove in the flywheel. Apply oil to the metal position. Replace the capstan assembly.
Pinch roller	Rough rotation (Deformation scratches, or dust.) The angular position of the pinch roller is not correct. The pinch roller pressure is not correct.	Replace pinch roller, or pinch roller spring. Clean the pinch roller or apply oil to the rotary shaft. Adjust the pinch roller so that it is parallel with the capstan shaft. Replace the pinch roller spring.
Belt	Belt has undue run-out. Belt is dirty or slippery.	Clean the belt. Replace the belt.
Back tension	Back tension is irregular, or back tension is too strong.	Replace back tension spring (under supply disc).
Motor	Motor shaft has undue run-out. Motor pulley is oily and dusty.	Replace motor. Clean motor pulley.
Take-up idler arm	Pulley has deflection. Pulley is stuck.	Replace take-up idler arm.

Maintenance

To get long, trouble-free service, maintenance is important. Do not forget cleaning and demagnetizing.

Cleaning

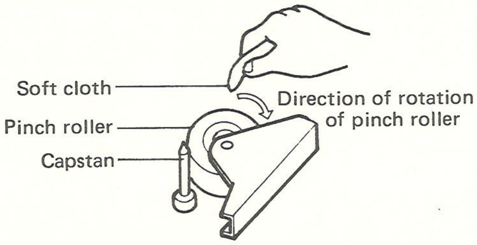
After long use, the heads and tape part — capstan, pinch roller, etc. — will become dirty with dust or magnetic particles. Dirty heads cause imperfect erasing or high frequency drop-off. A dirty capstan and pinch roller will cause unstable tape speed, leading to increased wow and flutter. Always keep them clean by following the procedure below.

1. Heads

1) Press the PLAY button to move the heads out.
2) Use the head cleaning stick provided to wipe the surface where the tape comes into contact with the head.
(It is effective to moisten the cotton with alcohol.)

2. Pinch roller and capstan

1) Press the PLAY button, and the pinch roller will move out and rotate.
2) Apply a soft cloth (soaked in alcohol, it will be more effective) to the rotating pinch roller and capstan.
Be careful not to let the cloth get caught!
*Do not use any cleaner besides alcohol or a specifically prepared tape head cleaning solution.



3. Cabinet

When the cabinet becomes dirty, wipe it with a soft cloth soaked with a neutral cleaning solution of a polishing cloth.
*Do not use thinner or benzine.

Demagnetizing

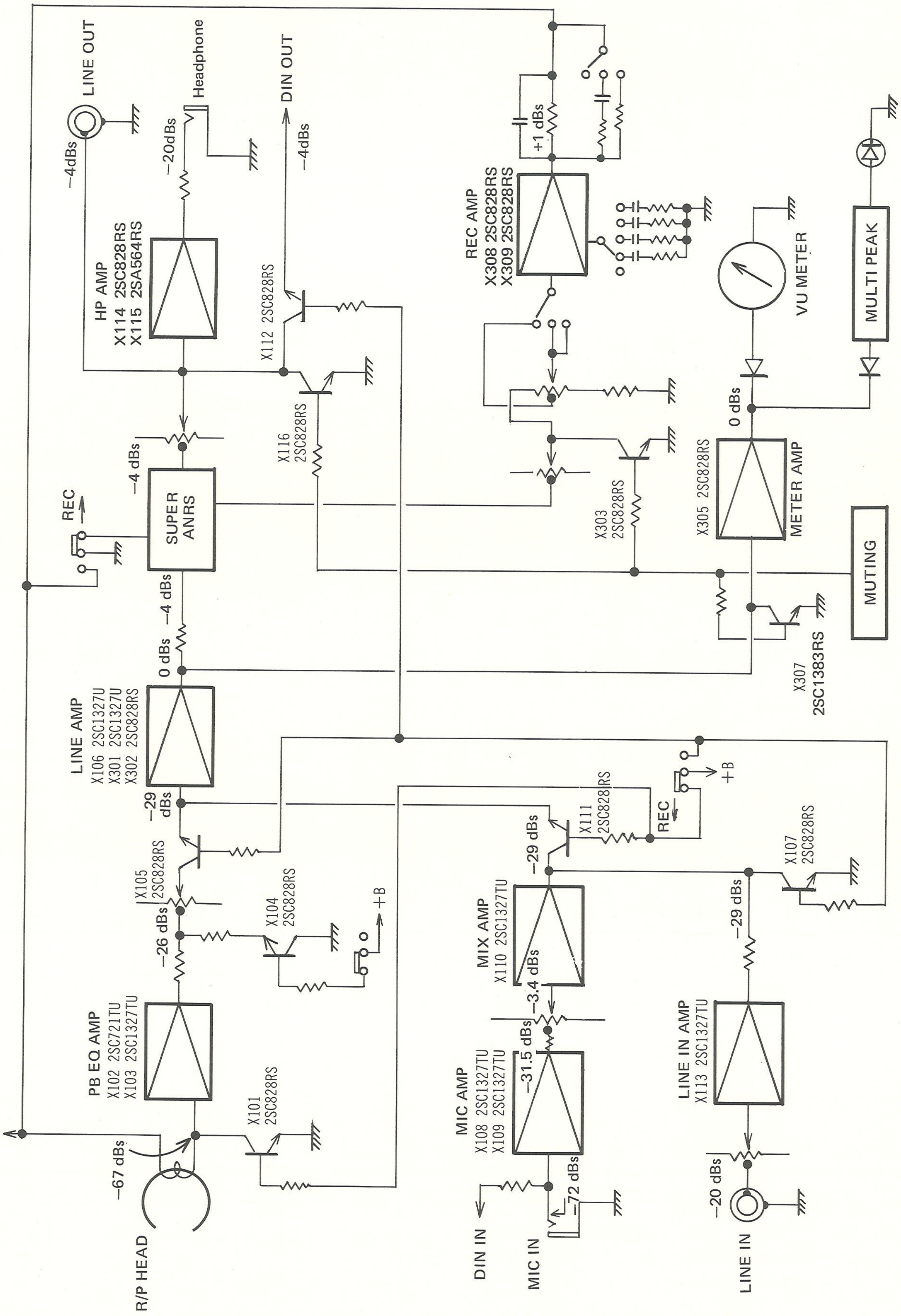
The heads are made from a material resistant to magnetization, but after long use they may become magnetized. A magnet brought into their vicinity can magnetize the heads, causing excess noise. If noise seems to have increased, demagnetize the heads with a head demagnetizer through the following procedure.

1. Turn the POWER switch OFF.
2. Wrap the tip of the demagnetizer with vinyl tape or soft cloth so as not to demage the head surface. Switch on the demagnetizer and bring it close to the head.
3. Move the tip of the demagnetizer slowly first to the left and right, then up and down in front of the head.
Gradually move it away from the head and switch if off at a distance of more than 30 cm. (12")
4. The erase head need not be demagnetized. The capstan shaft and tape guide should be demagnetized in the same way as the record/playback head.
*Do not bring a magnetized metallic object (a screwdriver, for example) near the head as this will increase noise.

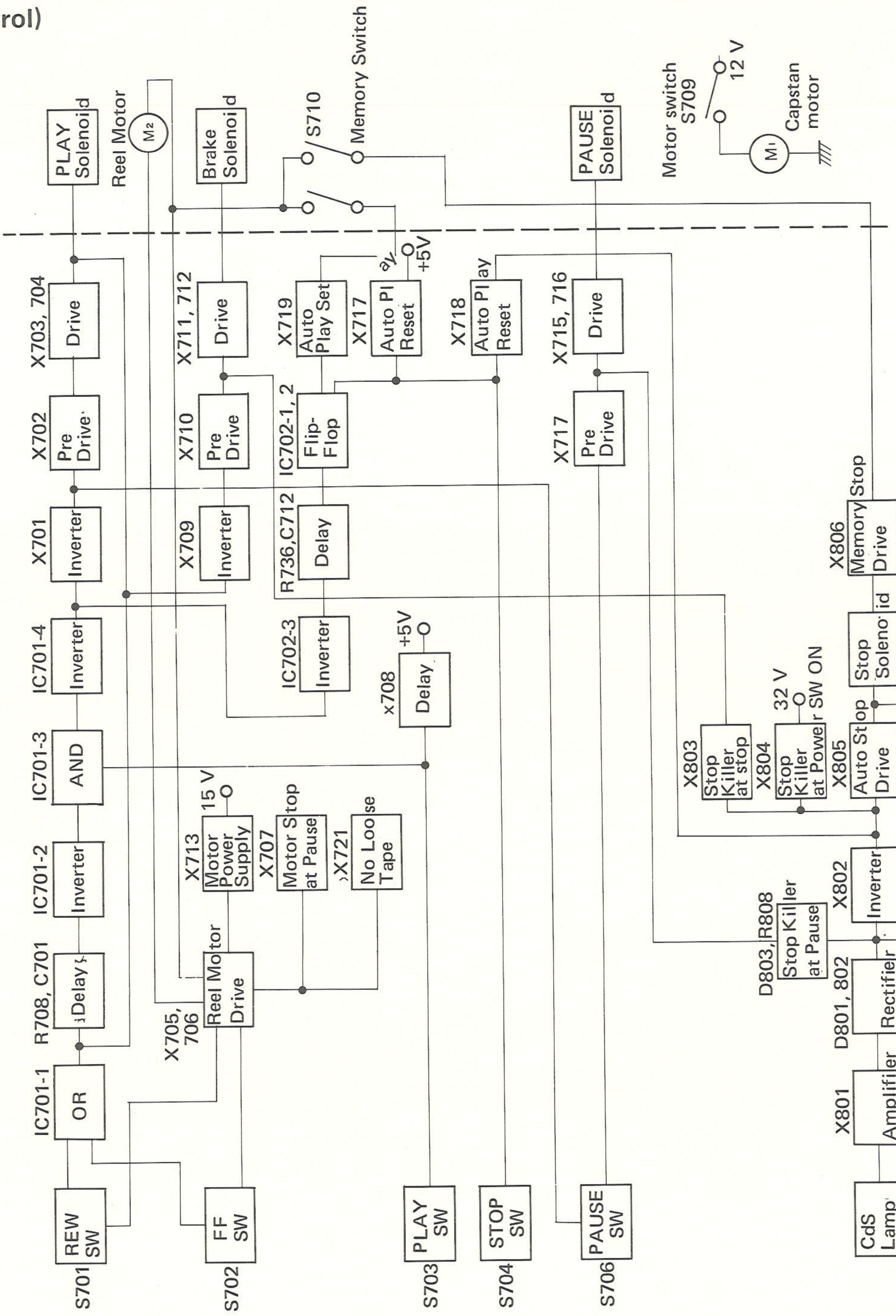
Oiling

Feed one or two drops of machine oil to the rewind roller shaft, pinch roller shaft and magnet pulley shaft once or twice a year under normal conditions of use.
Avoid oiling them excessively, or rotation may become irregular because of oil splashes.

Block Diagram (Amplifier)


LINE OUT
−4dBs
Headphone
−20dBs
DIN OUT
−4dBs
HP AMP
X114 2SC828RS
X115 2SA564RS
X112 2SC828RS
REC AMP
X308 2SC828RS
X309 2SC828RS
+1 dBs
VU METER
MULTI PEAK
0 dBs
X116 2SC828RS
−4 dBs
REC
SUPER ANRS
X303 2SC828RS
X305 2SC828RS
METER AMP
MUTING
−4 dBs
0 dBs
X307 2SC1383RS
LINE AMP
X106 2SC1327U
X301 2SC1327U
X302 2SC828RS
−29 dBs
+B
REC
X111 2SC828RS
−29 dBs
X105 2SC828RS
−26 dBs
X104 2SC828RS
+B
X107 2SC828RS
−29 dBs
MIX AMP
X110 2SC1327TU
−3.4 dBs
−31.5 dBs
PB EQ AMP
X102 2SC721TU
X103 2SC1327TU
X101 2SC828RS
MIC AMP
X108 2SC1327TU
X109 2SC1327TU
LINE IN AMP
X113 2SC1327TU
−67 dBs
−72 dBs
−20 dBs
R/P HEAD
DIN IN
MIC IN
LINE IN

(Mecha. Control)

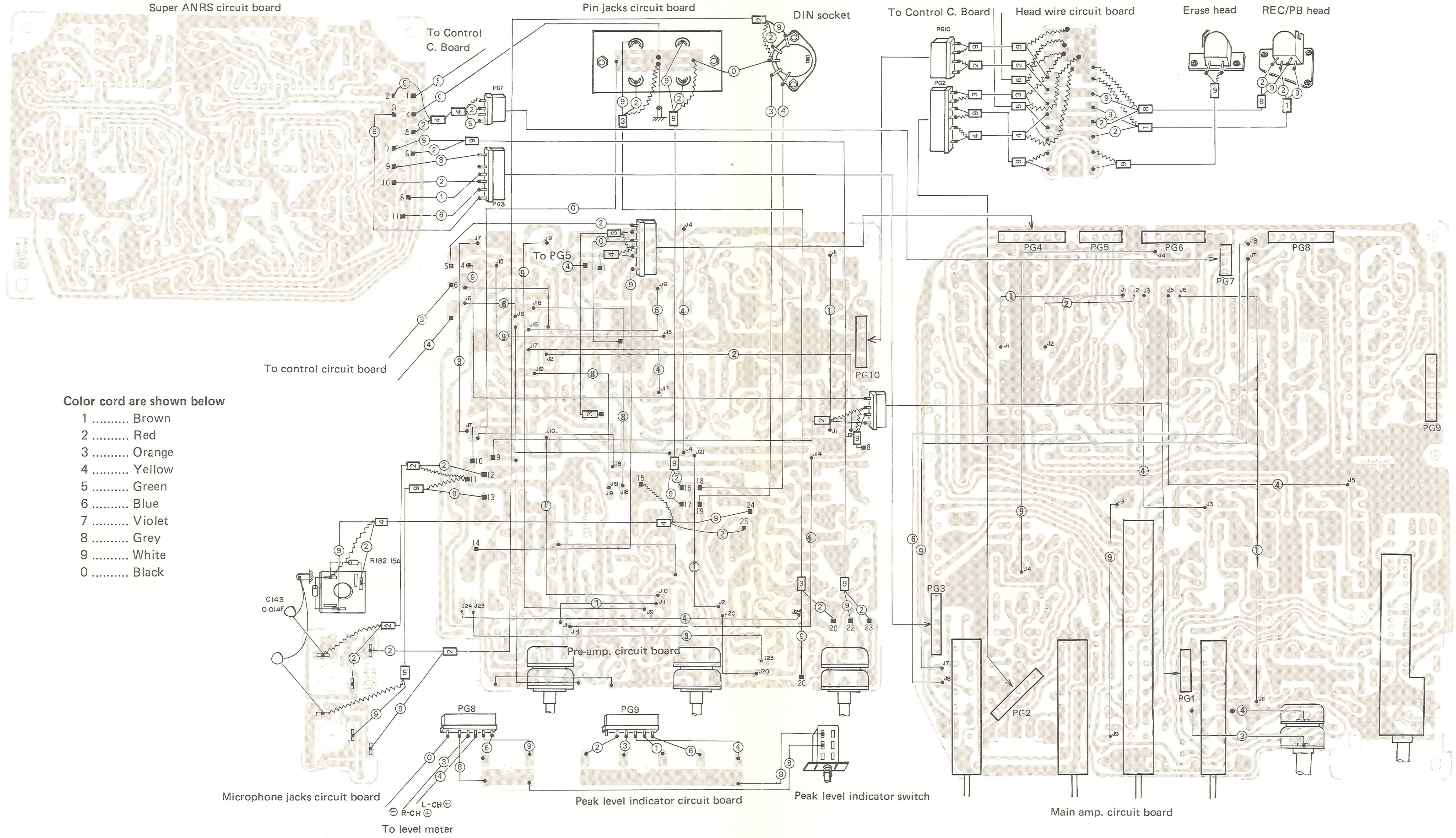

PLAY Solenoid
Reel Motor
M2
Brake Solenoid
S710
Memory Switch
PAUSE Solenoid
Motor switch S709
12 V
M1
Capstan motor
X703, 704
Drive
X702
Pre Drive
X701
Inverter
IC701-4
Inverter
IC701-3
AND
IC701-2
Inverter
R708, C701
Delay
IC701-1
OR
REW SW
S701
X711, 712
Drive
X710
Pre Drive
X709
Inverter
X713
Motor Power Supply
15 V
X705, 706
Reel Motor Drive
FF SW
S702
X719
Auto Play Set
X717
Auto Pl Reset
+5V
IC702-1, 2
Flip-Flop
R736,C712
Delay
IC702-3
Inverter
X707
Motor Stop at Pause
X721
No Loose Tape
x708
Delay
PLAY SW
S703
X718
Auto Play Reset
STOP SW
S704
X715, 716
Drive
X717
Pre Drive
PAUSE SW
S706
X806
Memory Stop Drive
Stop Solenoid
X803
Stop Killer at stop
X804
Stop Killer at Power SW ON
32 V
X805
Auto Stop Drive
X807
Stop Proof
X802
Inverter
D803, R808
Stop Killer at Pause
D801, 802
Rectifier
X801
Amplifier
CdS Lamp

Button position and element of operation

Cassette tape	Depressing button	Reel motor	Capstan motor	Play solenoid	Brake solenoid	Pause solenoid
use	FF	−	○	X	○	X
	REW	+	○	X	○	X
	PLAY/REC	−	○		○	X
	STOP	X	○	X	X	X
	PAUSE+PLAY/REC	X	○		○	○
no use	at all mode	X	X	X	X	X

○ operating X not operating ± turning direction (with reel motor)

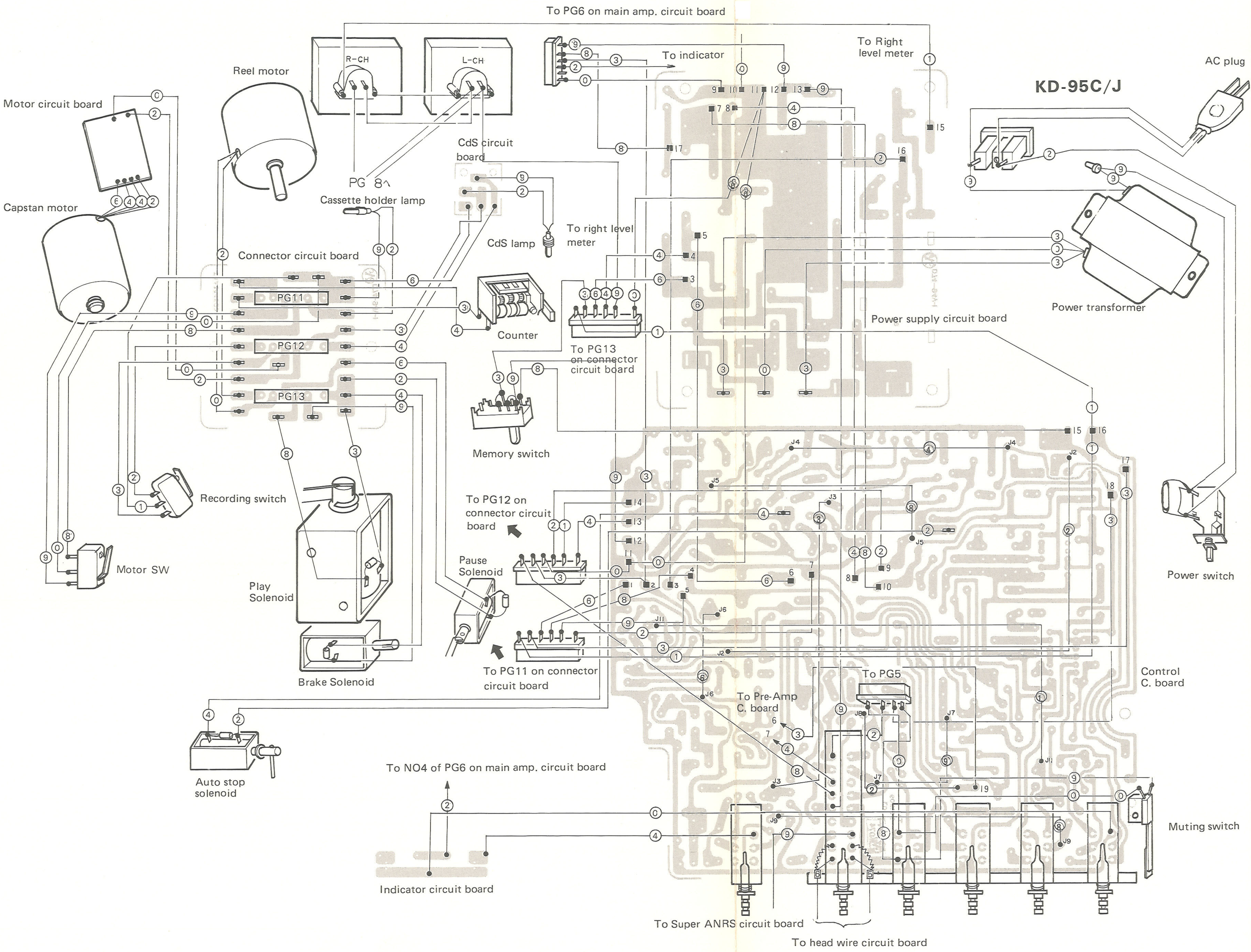
Wiring of KD-95 (Amplifier)

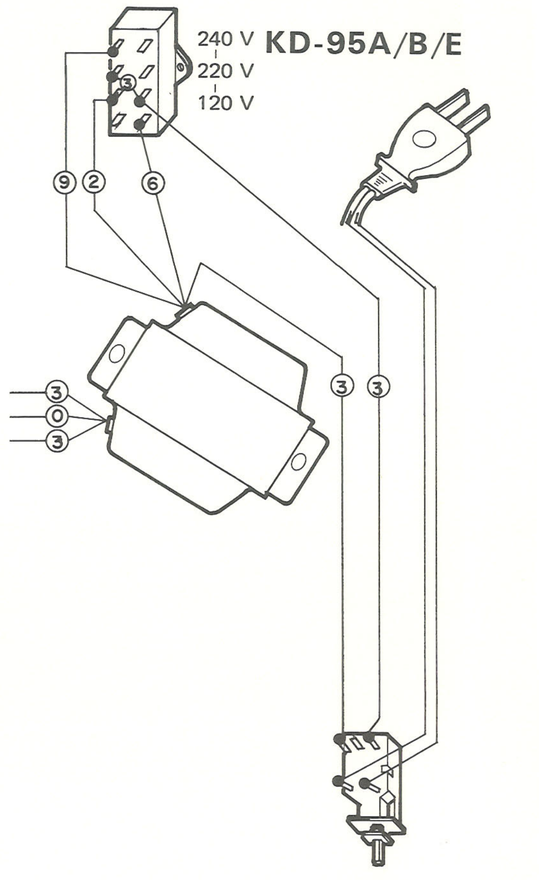

Super ANRS circuit board
To Control C. Board
Pin jacks circuit board
DIN socket
To Control C. Board
Head wire circuit board
Erase head
REC/PB head
PG10
PG2
PG7
PG3
To PG5
To control circuit board
PG4
PG5
PG6
PG7
PG8
PG9
PG10
PG3
PG1
PG2
R182 15A
C143 0.014F
Pre-amp. circuit board
PG8
PG9
Microphone jacks circuit board
⊖ R-CH ⊕
L-CH⊕
To level meter
Peak level indicator circuit board
Peak level indicator switch
Main amp. circuit board

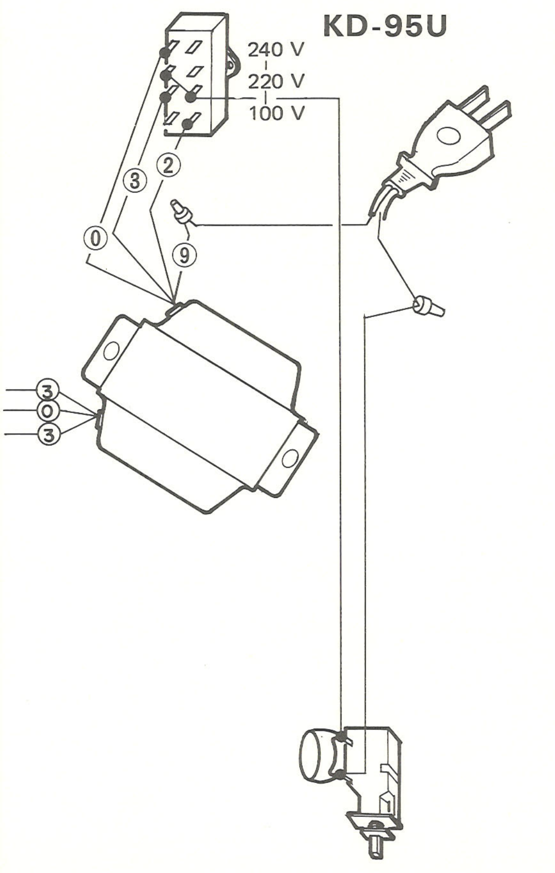
Color cord are shown below

1 .... Brown
2 .... Red
3 .... Orange
4 .... Yellow
5 .... Green
6 .... Blue
7 .... Violet
8 .... Grey
9 .... White
0 .... Black

(Mecha Control)

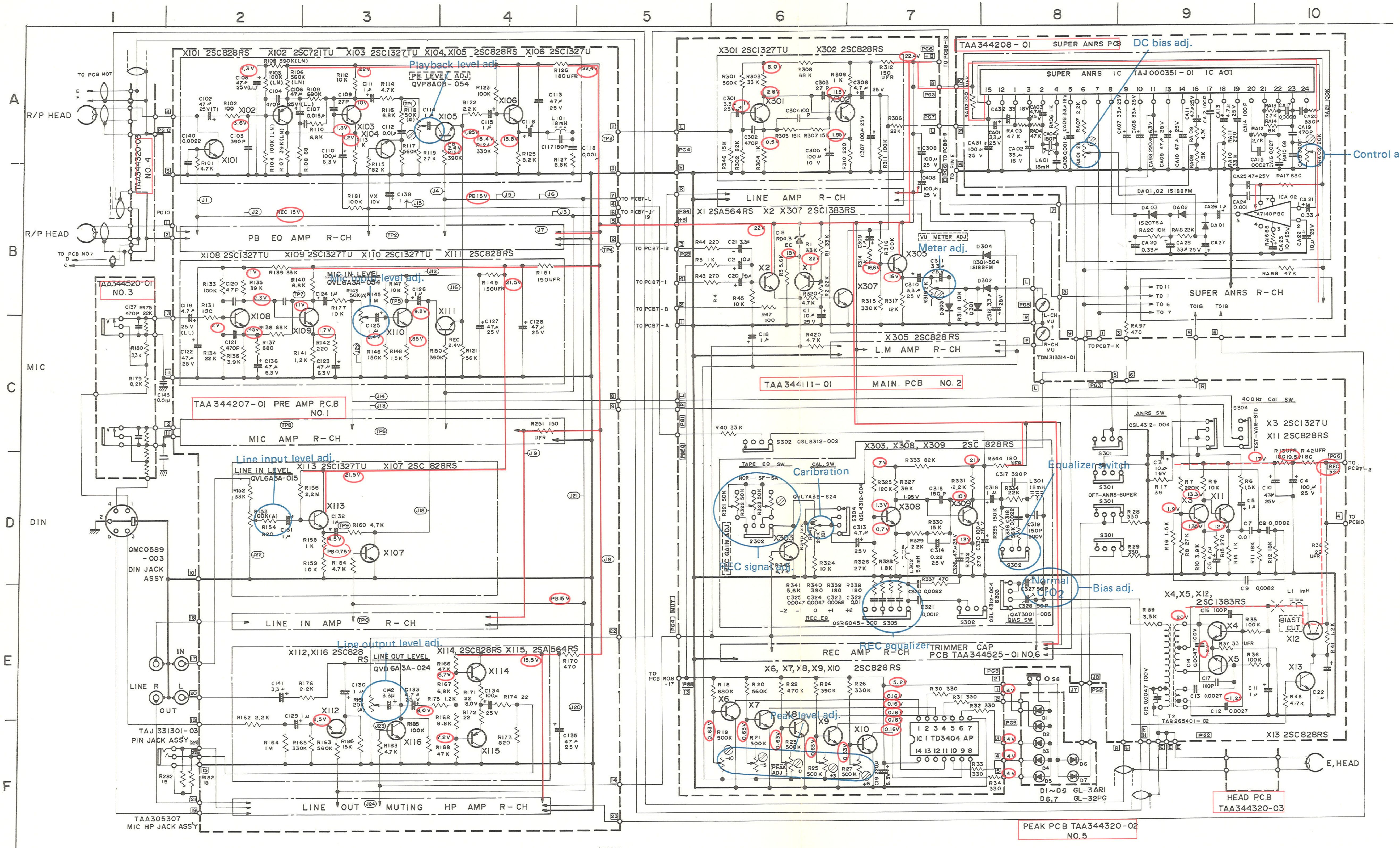

To PG6 on main amp. circuit board
R-CH
L-CH
Reel motor
Motor circuit board
Capstan motor
PG 8
CdS circuit board
Cassette holder lamp
CdS lamp
To indicator
To Right level meter
To right level meter
AC plug
KD-95C/J
Connector circuit board
PG11
PG12
PG13
Counter
To PG13 on connector circuit board
Memory switch
Power supply circuit board
Power transformer
Recording switch
Motor SW
Play Solenoid
Brake Solenoid
Pause Solenoid
To PG12 on connector circuit board
To PG11 on connector circuit board
Power switch
Control C. board
To PG5
To Pre-Amp C. board
Auto stop solenoid
To NO4 of PG6 on main amp. circuit board
Indicator circuit board
Muting switch
To Super ANRS circuit board
To head wire circuit board


KD-95A/B/E
240 V
220 V
120 V


KD-95U
240 V
220 V
100 V

Standard Schematic Diagram of KD-95 (Amplifier)

All voltages are measured by DC V.T.V.M., without input signal unless otherwise specified.


Playback level adj.
DC bias adj.
Control amp. gain adj.
Mic input level adj.
Meter adj.
Line input level adj.
Caribration
Equalizer switch
REC signal
Normal CrO2
Bias adj.
Line output level adj.
REC equalizer
Peak level adj.
TAA344207-01 PRE AMP P.C.B NO.1
TAA344111-01 MAIN. PCB NO.2
TAA344520-01 NO.3
TAA344320-03 NO.4
PEAK PCB TAA344320-02 NO.5
TRIMMER CAP PCB TAA344525-01 NO.6
HEAD PCB TAA344320-03
TAA344208-01 SUPER ANRS PCB
SUPER ANRS IC TAJ000351-01 IC A01
PB EQ AMP R-CH
MIC AMP R-CH
LINE IN AMP R-CH
LINE OUT MUTING HP AMP R-CH
LINE AMP R-CH
L.M AMP R-CH
REC AMP R-CH
SUPER ANRS R-CH
R/P HEAD
MIC
DIN
LINE IN
OUT
E, HEAD
QMC0589-003 DIN JACK ASSY
TAJ331301-03 PIN JACK ASSY
TAA305307 MIC HP JACK ASS'Y
X101 2SC828RS
X102 2SC721TU
X103 2SC1327TU
X104, X105 2SC828RS
X106 2SC1327TU
X108 2SC1327TU
X109 2SC1327TU
X110 2SC1327TU
X111 2SC828RS
X113 2SC1327TU
X107 2SC828RS
X112, X116 2SC828RS
X114 2SC828RS
X115 2SA564RS
X301 2SC1327TU
X302 2SC828RS
X1 2SA564RS
X2 X307 2SC1383RS
X305 2SC828RS
X303, X308, X309 2SC828RS
X6, X7, X8, X9, X10 2SC828RS
X3 2SC1327U
X11 2SC828RS
X4, X5, X12, 2SC1383RS
X13 2SC828RS
IC1 TD3404AP
D1~D5 GL-3AR1
D6,7 GL-32PG

NOTE :

ALL VOLTAGES ARE MEASURED BY DC VTVM, WITHOUT INPUT SIGNAL.

UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE 1/4W, ±5% CARBON RESISTOR,

ALL CAPACITORS ARE 50V RATED VOLTAGE.

(LN) : LOW NOISE CARBON RESISTOR.

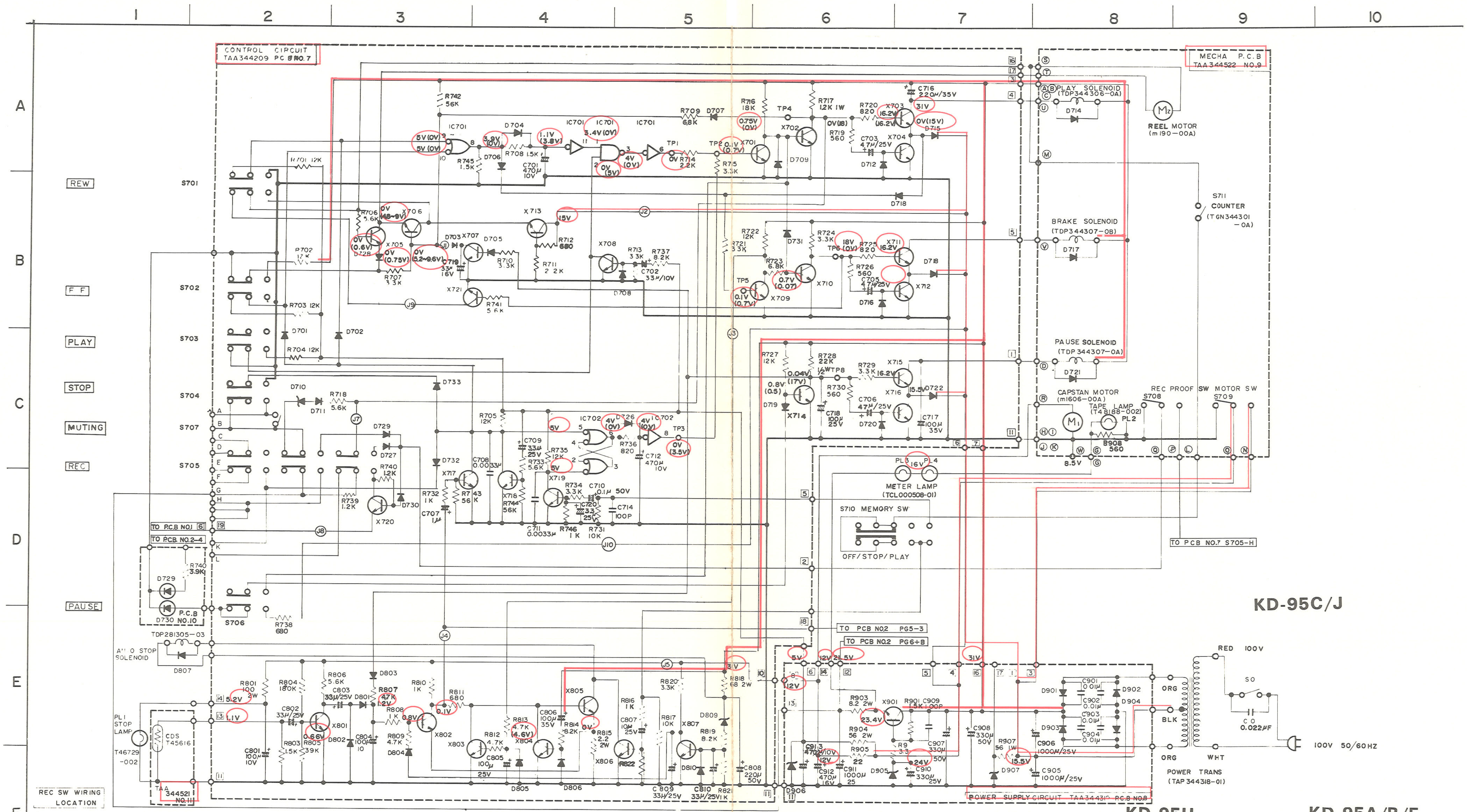
(LLC) : LOW LEAK CURRENT ELECTROLYTIC CAPACITOR ±20% TOLERANCE.

(UFR) : UN FLAMABLE RESISTOR

S 301	ANRS	SW	(OFF)
S 302	EQ	SW	(NORMAL)
S 303	BIAS	SW	(NORMAL)
S 304	CALIBRATION	SW	(STANDARD)
S 305	TREBLE RESPONSE		(O)
S 8	PEAK	SW	(ON)

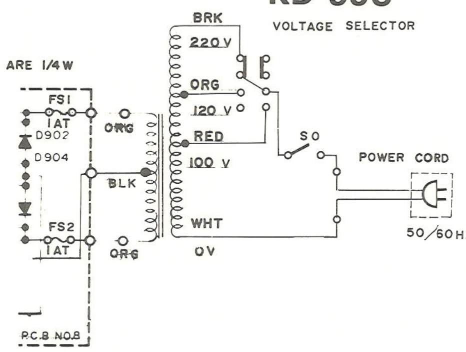
Standard Schematic Diagram (Mecha Control) of KD-95

All voltages are measured by DC V.T.V.M.
( ) voltages means values at operating.


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
G
CONTROL CIRCUIT TAA344209 PC B NO.7
MECHA P.C.B TAA344522 NO.9
POWER SUPPLY CIRCUIT TAA344311 PCB NO8
REW
F F
PLAY
STOP
MUTING
REC
PAUSE
S701
S702
S703
S704
S707
S705
S706
IC701
IC702
X701
X702
X703
X704
X705
X706
X707
X708
X709
X710
X711
X712
X713
X714
X715
X716
X717
X718
X719
X720
X721
X801
X802
X803
X804
X805
X806
X807
X901
PLAY SOLENOID (TDP344306-0A)
REEL MOTOR (m190-00A)
BRAKE SOLENOID (TDP344307-0B)
PAUSE SOLENOID (TDP344307-0A)
CAPSTAN MOTOR (m1606-00A)
TAPE LAMP (T4 8188-002) PL2
REC PROOF SW S708
MOTOR SW S709
S711 COUNTER (TGN344301-0A)
METER LAMP (TCL000508-01)
S710 MEMORY SW
OFF/STOP/PLAY
TO PCB NO.7 S705-H
TO PCB NO2 PG5-3
TO PCB NO2 PG6+B
TO PCB NO1
TO PCB NO.2-4
P.C.B NO.10
TDP281305-03
AUTO STOP SOLENOID
PL1 STOP LAMP T46729-002
CDS T45616
REC SW WIRING LOCATION
TAA 344521 NO.11
POWER TRANS (TAP344318-01)
KD-95C/J
RED 100V
SO
CO 0.022μF
100V 50/60HZ
ORG
BLK
WHT
31V
15.5V
23.4V
24V
12V
5V
8.5V

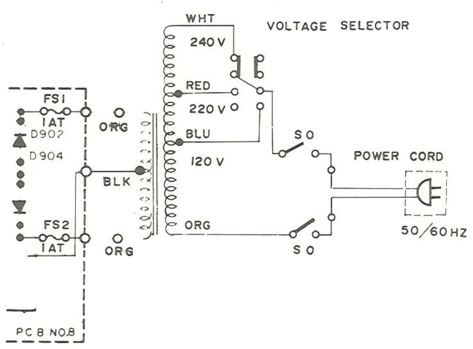
KD-95U

VOLTAGE SELECTOR


BRK
220V
ORG
120 V
RED
100 V
WHT
OV
FS1 1AT
FS2 1AT
D902
D904
ORG
BLK
ORG
SO
POWER CORD
50/60HZ
P.C.B NO.8

KD-95A/B/E

VOLTAGE SELECTOR


WHT
240V
RED
220V
BLU
120V
ORG
FS1 1AT
FS2 1AT
D902
D904
ORG
BLK
ORG
SO
SO
POWER CORD
50/60HZ
PC B NO.8

REC SW NO.		
A	P.C.B. NO.2 — PG5 — 1	5-C
B	P.C.B. NO.2 — PG5 — 2	~~5-B~~-C
C	TO P.C.B. NO.4(R)	R/P HEAD
D	TO P.C.B. NO.4(R)	
E	TO P.C.B. NC.4(L)	EARTH
F	TO P.C.B. NO.4(L)	
H	TO P.C.B. NO.9 Ⓟ	
K	TO S. AVR3PCB [1]	8-C
L	TO P.C.B. NO.1 [7]	5-B

SW NO.		
S701	REW.SW	STOP MODE
S702	F.F SW	STOP MODE
S703	PLAY SW	STOP MODE
S704	STOP SW	STOP MODE
S705	REC SW	OFF MODE
S706	PAUSE SW	OFF MODE
S707	MUTING SW	OFF MODE
S708	REC PROOF SW	PLAY MODE
S709	MOTOR SW	OFF MODE
S710	MEMORY SW	OFF MODE
S711	COUNTER SW	OFF MODE

Tr. IC NO.	
2SC828(RS):	X701, 702, 707, 708, 709, 710, 714, 717, 718, 719, 720 X801, 802, 803, 804, 807
2SC1383(RS):	X704, 706, 712, 713, 716, 721
2SC1384S:	X703, 711, 715, 805, 806
2SC1162 :	X901
TD3400AP:	IC 701, 702
1S2076A:	D701, 702, 703, 704, 705, 706, 707 708, 709, 711, 712, 713, 716, 720, 723 724, 725, 726, 727, 729 803, 804, 805, 806, 808, 810
10E-1 :	D715, 718, 722, 728, 901, 902, 903 904, 807
V06B:	D714, 717, 721
RD10E:	D710, 809
RD24E:	D905
1N4743:	D906, 907
1S188FM:	D719, 727, 730, 801, 802
TLR 102	D729
TLG 102	D730

NOTE

UNLESS OTHER WISE SPECIFIED, ALL RESISTORS ARE 1/4W ±5% TOLERANSE CARBON RESISTOR

[Variable resistors]

R118, 218	QVP8A0B-054	Playback level adj.	50 kΩ	Pre-amp. circuit board
R143, 243	QVL6A3A-054	MIC/DIN input level adj.	50 kΩ	
R153, 253	QVL6A3A-015	LINE input level adj.	100 kΩ	
R161, 261	QVL6A3A-024	LINE output level adj.	20 kΩ	
R342	QVL7A3A-624	Level adj.	620 kΩ	Main amp. circuit board
R319, 419	QVP8A0B-023	Meter adj.	2 kΩ	
R19, 21, 23, 25, 27	QVP8A0B-055	Peak level adj.	500 kΩ	
VRA01, B01	QVP8A0B-023	DC bias adj.	2 kΩ	Super ANRS circuit board
VRA02, B02	QVP8A0B-024	Control amp. gain adj.	20 kΩ	

[Diodes]

D301,401,302,402, 303,403,304,404	1S188FM	Ge. Diode	Main amp. circuit board
D1	RD4. 3EC	Zener Diode	
DA01,B01,A02,B02	1S188FM	Ge. diode	Super ANRS circuit board
DA03, B03	1S2076A	Si. diode	
D701,702,703,704, 705,706,707,708, 709,710,711,712, 720,723,724,725, 726,803,804,805, 806,808,810,113	1S2076A	Si. diode	Control circuit board
D715,718,728,807	T30155-001	Si. diode	
D710, 809	RD10E	Zener diode	
D719,801,802,727	1S188FM	Ge. diode	
D901,902,903,904	T30155-001	Si. diode	Power supply circuit board
D905	RD24E	Zener diode	
D906,907	1N4733T5	Zener diode	

[Transistors]

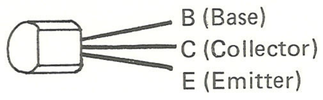
X101,201,104,204, 105,205,107,207, 111,211,112,212, 115,215,116,216	2SC828(RS)	Pre-amp. circuit board
X102,202	2SA721(RS)	
X103,203,106,206, 108,208,109,209, 110,210	2SC1327(TU)	
X114,214	2SA564(RS)	
X3, 301,401	2SC1327(U)	Main amp. circuit board
X4,5,12,307,407	2SC1383(RS)	
X2,6,7,8,9,10,11, 301,401,303,403, 305,405,308,408, 309,409	2SC828(RS)	
X1	2SA564(RS)	
X701,702,707,708, 709,710,714,717, 718,719,801,802, 803,804,807	2SC828(RS)	Control circuit board
X703,711,805,806	2SC1384(S)	
X704,705,706,712, 713,716	2SC1383(RS)	
X901	2SC1162	Power supply circuit board

[ICs]

IC1	TD3404AP	Main amp. circuit board
ICA02, B02	TA7140PBC	Super ANRS circuit board
ICA01, B01	TAT000351-01 (Super ANRS IC)	
IC701, 702	TD3400AP	Control circuit board

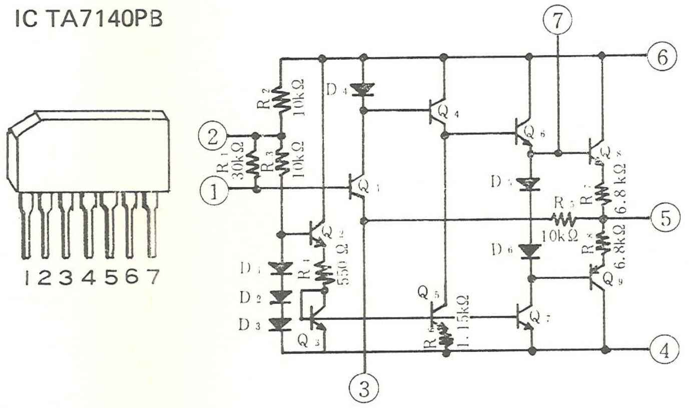
[Switches]

S1	QSP1110-221	Power switch	
S201	QSP2210-041	Peak level switch	
S710	QSS2324-003	Memory switch	
S711	TGN344301-0A	Counter switch	
S707	TDS000334-04	Muting switch	Control circuit board
S8	QSP0259-103	Push switch	
S706	QSP0219-009	Pause switch	
S301	QSL4312-004	ANRS switch	Main amp. circuit board
S302	QSL8312-002	Equalizer switch	
S303	QSL4312-004	Bias switch	
S304	QSL4312-004	Tape select switch	
	QSR6045-300	REC equalizer switch	

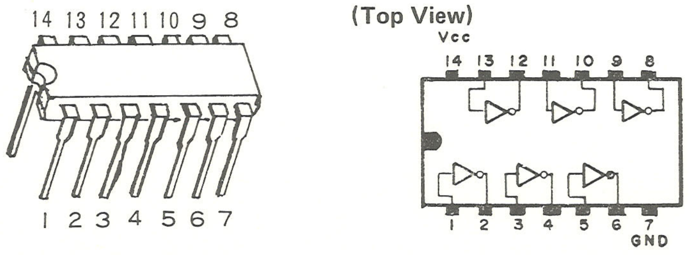


Transistor

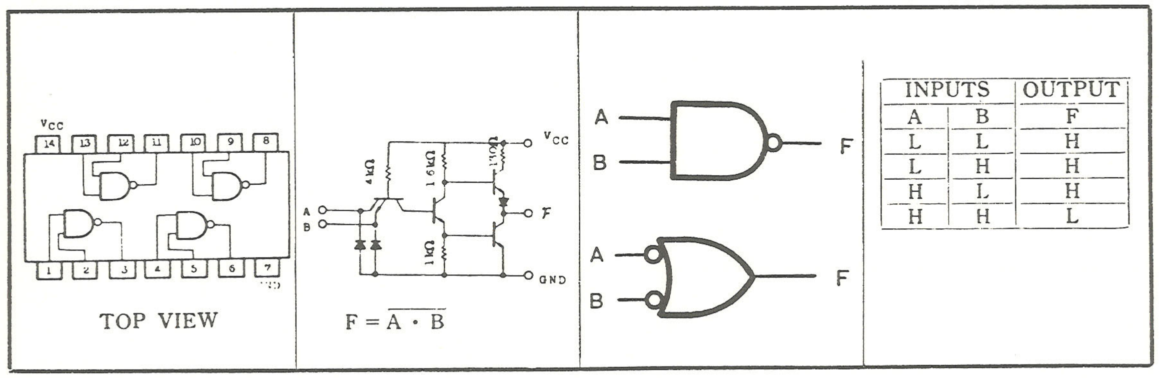
IC TA7140PB



IC TD3404AP



TD3400AP



F = $\overline{A \cdot B}$

INPUTS		OUTPUT
A	B	F
L	L	H
L	H	H
H	L	H
H	H	L

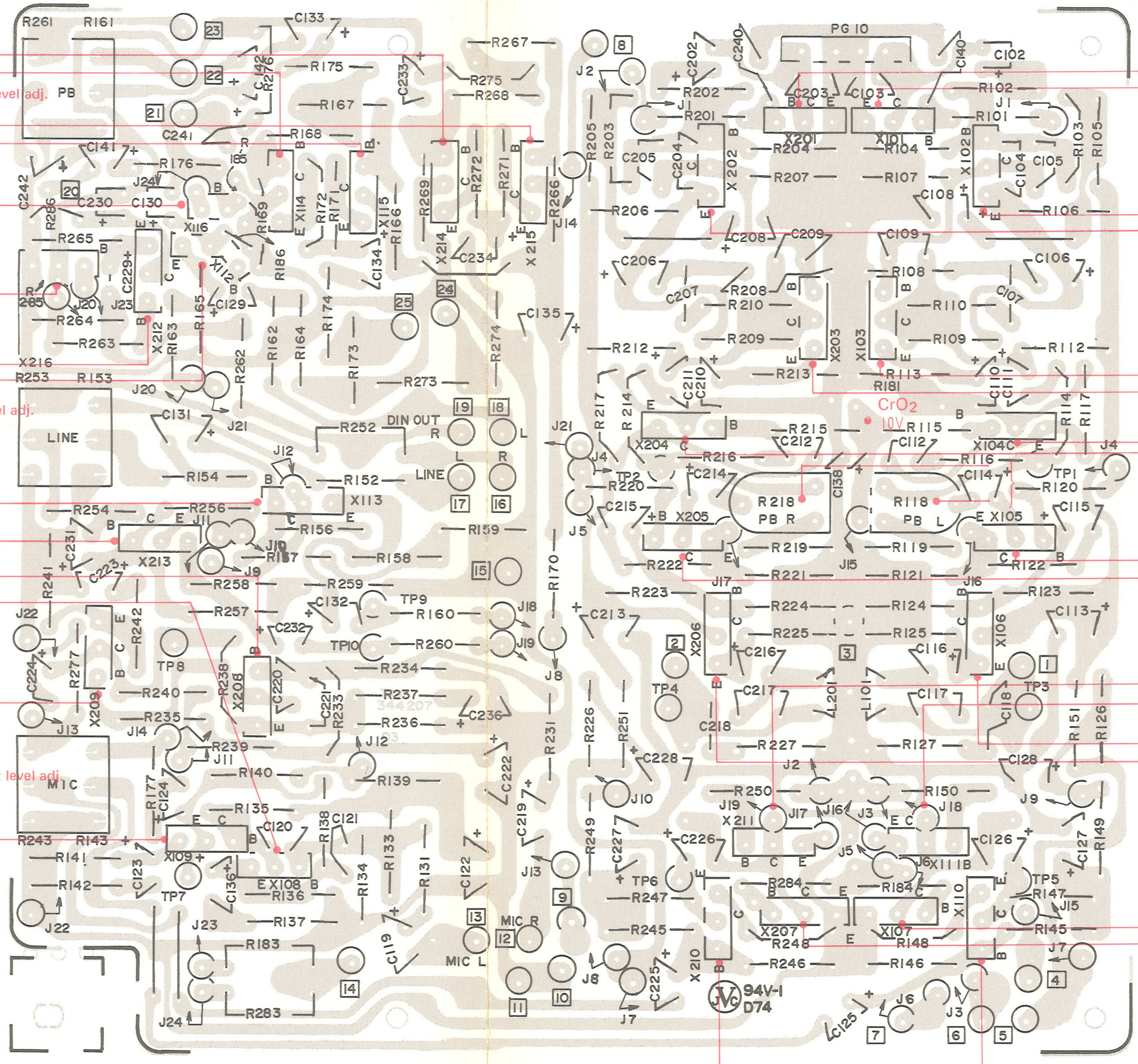
Circuit Board Parts

Pre-Amp Circuit Board Parts

*Tester = Circuit Tester

When you measure the voltage by circuit tester, we recommend you to use 20 kΩ/V impedance.

	VTVM	Tester	
B Base	8.7	8.1	X114 X214
C Collector	15.5	15.5	
E Emitter	8.1	8.1	
B	7.2	6.2	X115 X215
C	0	0	
E	7.8	7.8	
B	0.74	0.74	X116 X216 at STOP (at REC, PLAY ≒ 0)
C	0	0	
E	0	0	
B	0.9	0.5	X112 X212 at PLAY (at REC = 0)
C	0.3	0.2	
E	0.3	0.2	
B	13.9	6	X113 X213
C	21.5	21.5	
E	14.5	14.5	
B	2	1.5	X108 X208
C	2.3	1.8	
E	1.45	1.4	
B	2.3	1.8	X109 X209
C	11	11	
E	1.7	1.6	
B	2.4	0.7	X110 X210
C	9.2	8.6	
E	1.85	1.6	


LINE output level adj.
PB
LINE input level adj.
LINE
MIC/DIN input level adj.
MIC
DIN OUT
CrO2
10V
PG 10
94V-I
D74
X101
X201
X102
X202
X103
X203
X104
X204
X105
X205
X106
X206
X107
X207
X108
X208
X109
X209
X110
X210
X111
X211
X112
X212
X113
X213
X114
X214
X115
X215
X116
X216
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
TP10
MIC R
MIC L
PB R
PB L

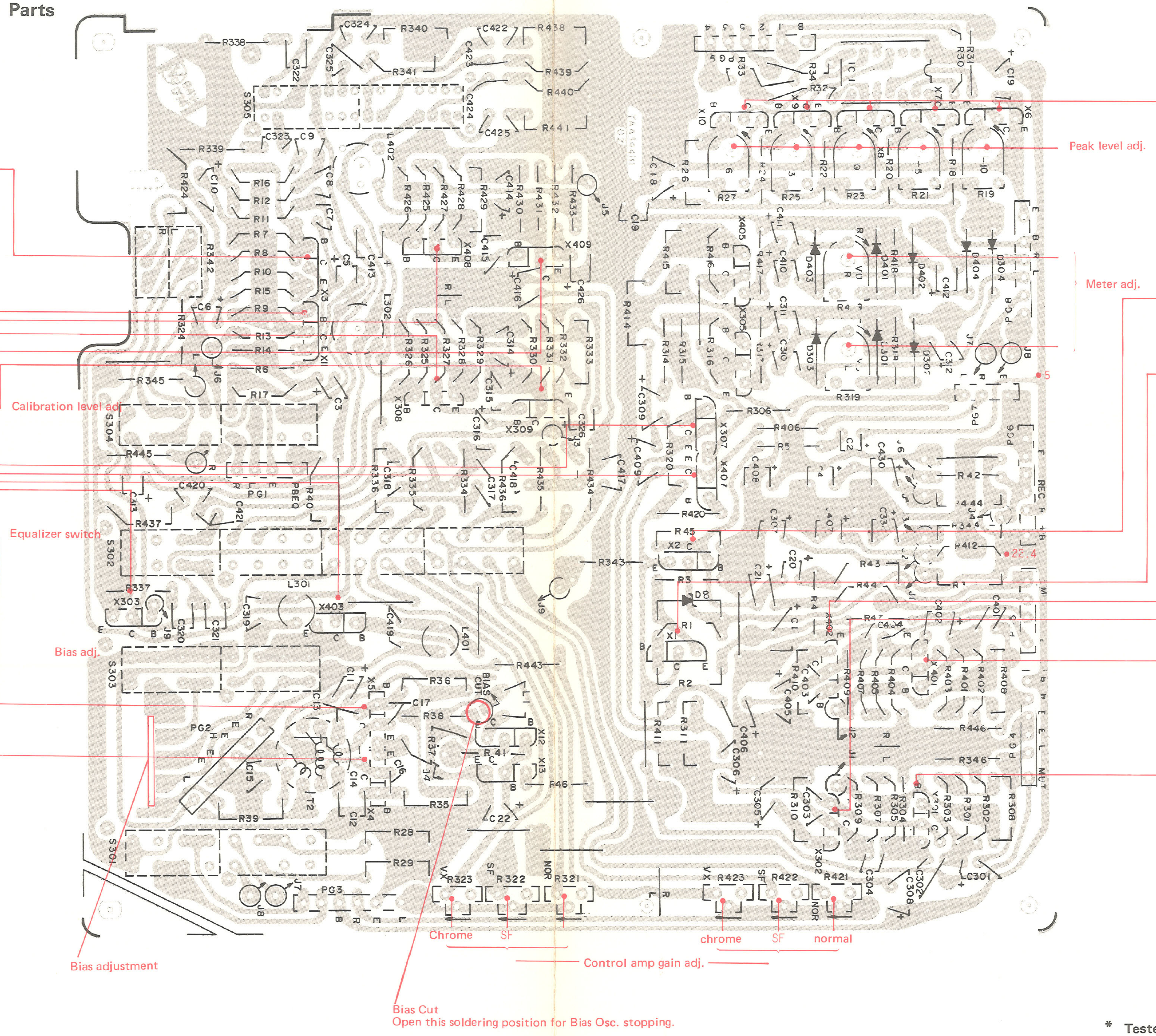
			VTVM	Tester
X101 X201	PLAY REC	B Base	0	0
		C Collector	0	0
		E Emitter	0	0
X107 X207	REC PLAY	B	0.76	0.76
		C	0	0
		E	0	0
X102 X202		B	3.6	1.5
		C	1.8	1.6
		E	4.0	4.0
X103 X203		B	1.8	1.6
		C	10	10
		E	1.2	1.2
X104 X204 at chrome (at normal = 0)		B	0.65	0.65
		C	0	0
		E	0	0
X105 X205	PLAY REC	B	2.4	0.7
		C	1.85	0.54
		E	1.85	0.54
X111 X211	REC PLAY	B	0.4	0
		C	—	0
		E	1.85	0.54
X106 X206		B	16	15.5
		C	22	22
		E	15.4	15.4

Pre-amp. Circuit Board Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	*TAA344207-01	Circuit Board (1)		1
R112,212,159,259, 177,277,147,247	QRD141K-103	C. Resistor	1 kΩ ¼ W	8
R102,202,131,231	" -101	"	100Ω "	4
R108,208	" -680	"	68 Ω "	2
R109,209	" -684	"	680 kΩ "	2
R120,220,150,250	" -394	"	390 kΩ "	4
R110,210,116,216, 127,227,140,240, 167,267,168,268	" -682	"	6.8 kΩ "	12
	" -0R0	"	0 Ω "	5
R113,213,158,258	" -102	"	1 kΩ "	4
R183,283,184,284, 114,214,160,260, 101,201	" -472	"	4.7 kΩ	10
R115,215	" -823	"	82 kΩ "	2
R117,217,163,263	" -564	"	560 kΩ "	4
R119,219	" -273	"	27 kΩ "	2
R121,221	" -563	"	56 kΩ "	2
R122,222,162,262, 176,276	" -222	"	2.2 kΩ "	6
R123,223,181	" -104	"	100 kΩ "	3
R124,224	" -334	"	330 kΩ "	2
R125,225	" -822	"	8.2 kΩ "	2
R136,236	" -392	"	3.9 kΩ "	2
R137,237	" -681	"	680 Ω "	2
R138,238,168,268	" -683	"	68 kΩ "	4
R139,239,152,252	" -333	"	33 kΩ "	4
R141,241	" -122	"	1.2 kΩ "	2
R142,242,	" -221	"	220 Ω "	2
R145,245,164,264	" -105	"	1 M Ω "	4
R146,246	" -154	"	150 kΩ "	2
R148,248	" -152	"	1.5 kΩ "	2
R154,254,173,273	QRD142K-821	"	820 Ω "	4
R156,256,	QRD141K-225	"	2.2 MΩ "	2
R165,265	" -334	"	330 kΩ "	2
R166,266,169,269	" -473	"	47 k Ω "	4
R171,271,172,272, 174,274	" -220	"	22 Ω "	6
R175,275	" -122	"	1.2 k Ω "	2
R182,282	QRD143K-153	"	15 kΩ "	2
R185,285	" -104	"	100 kΩ "	2
R143,243	QVL6A3A-054	V. Resistor	for MIC 50 kΩ	1
R153,253	* " -015	"	for LINE 100 kΩ	1
R161,261	*QVD6A3A-024	"	for OUTPUT 20 kΩ	4
R126,226	QRD146K-181	C. Resistor	180 Ω ¼ W	2
R170	" -471	"	470 Ω "	1
R149,249,151,251	" -151	"	150 Ω "	4
R103,203,104,204	QRZ0019-104	" (Low noise)	100 kΩ "	4
R105,205	" -394	"	390 kΩ "	2
R106,206	" -564	"	560 kΩ "	2
R107,207	" -393	"	39 kΩ "	2
R133,233	" -104	"	100 kΩ "	2
R134,234	" -223	"	22 kΩ "	2
R135,235	" -393	"	39 kΩ "	2
R118,218	QVP8A0B-054	V. Resistor	50 kΩ	2
C102,202	QEE41EM-475	Tantal E. Capacitor	4.7 μF 25 V	2
C103,203	QCS11HK-561	Ceramic Capacitor	560 pF 50 V	2
C104,204	" -471	"	470 pF "	2
C140,240	QFM41HK-222	Mylar Capacitor	0.0022 F	2
C106,206	QEB41EM-476	LLC, E. Capacitor	47 μF 25 V	2
C107,207	QFM41HK-153	Mylar Capacitor	0.015 μF	2
C108,208,113,213	QEW41EA-476	E. Capacitor	47 μF 25 V	4
C109,209	QCS11HK-270	Ceramic Capacitor	27 pF	2
C110,210	QEW41AA-107	E. Capacitor	100 μF 10 V	2
C111,211,116,216, 115,215,114,214	QEW41EA-105	"	1 μF 25 V	8
C112,212	QFM41HJ-103	Mylar Capacitor	0.01 μF	2
C117,217	QCS11HK-151	Ceramic Capacitor	150 pF 50 V	2
C118,218	QCY41HK-102	"	0.001 μF "	2
C119,219	QEB41EM-475	LLC. E. Capacitor	4.7 μF 25 V	2
C120,220	QCS11HK-470	Ceramic Capacitor	47 pF 50 V	2
C121,221	" -471	"	470 pF "	2
C122,222	QEW41EA-476	E. Capacitor	47 μF 25 V	2
C123,223	QEW41CA-476	"	47 μF 16 V	2
C124,224,125,225, 126,226	QEW41EA-105	"	1 μF 25 V	6
C127,227,128,228	QEW41EA-476	"	47 μF 25 V	4
C129,229,130,230	QEW41EA-105	"	1 μF "	4
C133,233	" --475	"	4.7 μF "	2
C134,234	" -107	"	100 μF "	2
C135	" -476	"	47 μF "	2
C131,231,132,232, 138	" -105	"	1 μF "	2
C136,236	QEW41AA-476	"	47 μF 10 V	2
C142,242	QEW41EA-335	"	3.3 μF 25 V	2
C143,243	" -106	"	10 μF "	2
L101,201	TAC000324-01	Inductor		1
X101,201,104,204, 105,205,107,207, 111,211,112,212, 115,215,116,216	2SC828(RS)	Transistor		16
X102,202	2SA721(TU)	"		2
X114,214	2SA564(RS)	"		2
X103,203,106,206, 108,208,109,209, 110,210,113,213	2SC1327(TU)	"		12
	QMC0427-001	Plug	PG10	1
	QMC0457-001	Connector	PG10	1
	E43727-002	Tab	Wire Wrapping	35

Main Amp. Circuit Board Parts

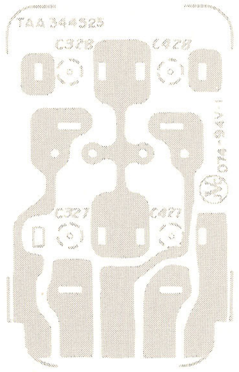
	VTVM	Tester	
B Base	0.9	0.8	X3 at REC (at PLAY = 0)
C Collector	13.3	13.3	
E Emitter	1.3	1.3	
B	13.3	13.3	X11 at REC (at PLAY = 0)
C	17	17	
E	12.7	12.7	
B	1.3	0.32	X308 X408
C	1.95	1.8	
E	0.7	0.7	
B	1.95	1.8	X309 X409
C	10	10	
E	1.3	1.3	
B	0.74	0.74	X303、403 X307、407 at STOP (at REC, PLAY = 0)
C	0	0	
E	0	0	
B	−1.2	−1.7	X4 X5 at REC
C	20	20	
E	1.2	1.1	


Calibration level adj.
Equalizer switch
Bias adj.
Bias adjustment
Peak level adj.
Meter adj.
Chrome
SF
chrome
SF
normal
Control amp gain adj.
BIAS CUT

Bias Cut
Open this soldering position for Bias Osc. stopping.

			VTVM	Tester
X6 X7 X8 X9 X10	OFF	B Base	0.62	—
		C Collector	0.09 ~0.16	0.09 ~0.16
		E Emitter	0	0
	ON	B	0.6	—
		C	1.4	1.4
		E	0	0
X2		B	0	0
		C	22.4	22.4
		E	0	0
X1	PLAY	B	22.4	22.4
		C	0	0
		E	18	18
	STOP	B	16.7	16.7
		C	12	12
		E	17.5	17.5
X301 X401		B	1.0	0.26
		C	2.6	2.4
		E	0.5	0.5
X302 X402		B	2.6	2.4
		C	11.5	11.5
		E	1.95	1.95

Trimer Capacitor C. Board



* Tester = Circuit Tester 20kΩ/V.

Main amp. Circuit Board Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
S301,303,304	*QSL4312-004	Lever Switch	ANRS, Bias, Caribration	3
S302	*QSL8312-002	″	Equalizer	1
S305	*QSR6045-300	Rotary Slide SW.	REC. EQ.	1
R342	*QVL7A3A-624	V. Resistor	Level adj.	1
	TAA344111-01	Circuit Board (2)	Not supplied as parts Ass'y.	1
R301,401	QRD141K-564	C. Resistor	560 kΩ ¼W	2
R311,411,316,416	″ -104	″	100 kΩ ″	4
R1,40,303,403	″ -333	″	33 kΩ ″	4
R14,304,404,309, 409,314,414,5	″ -102	″	1 kΩ ″	8
R305,405,307,407, 346,446,340,430	″ -153	″	15 kΩ ″	8
R308,408	″ -683	″	68 kΩ ″	2
R310,410,44,28,29	″ -221	″	220 Ω ″	5
R2,306,406,329,429, 334,434	″ -223	″	22 kΩ ″	7
R320,420,343,443, 46	″ -472	″	4.7 kΩ ″	5
R9,318,418,324,424, 45	″ -103	″	10 kΩ ″	6
R325,425	″ -124	″	120 kΩ ″	2
R8,326,426	″ -273	″	27 kΩ ″	3
R327,427	″ -393	″	39 kΩ ″	2
R328,428	″ -182	″	1.8 kΩ ″	2
R338,438,339,439	″ -181	″	18 Ω ″	4
R340,440	″ -391	″	390 Ω ″	2
R3,341,441	″ -562	″	5.6 kΩ ″	3
R337,437	″ -471	″	470 Ω ″	2
R333,433,302,402	″ -823	″	82 kΩ ″	4
R331,431	″ -222	″	2.2 KΩ ″	2
R332,432,43,15	″ -271	″	270 Ω ″	4
R335,435	″ -154	″	150 kΩ ″	2
R336,436	″ -563	″	56 kΩ ″	2
R345,445,317,417	″ -123	″	12 kΩ ″	4
R26,315,415	″ -334	″	330 kΩ ″	3
R317,417	″ -123	″	12 kΩ ″	2
R6, 16	″ -152	″	1.5 kΩ ″	2
R7	″ -224	″	220 kΩ ″	1
R10	″ -392	″	3.9 kΩ ″	1
R11, 12	″ -183	″	18 kΩ ″	2
R35, 36	QRD142K-104	″	100 kΩ ″	2
R39	″ -332	″	3.3 kΩ ″	1
R17	QRD141K-390	″	39 Ω ″	1
R18	″ -684	″	680 kΩ ″	1
R20	″ -564	″	560 kΩ ″	1
R22	″ -474	″	470 kΩ ″	1
R24	″ -394	″	390 kΩ ″	1
R30,31,32,33,34	″ -331	″	330 Ω ″	5
R47	QRD141K-101	″	100 Ω	1
R41	″ -122	″	1.2 kΩ ″	1
	″ -0R0	″	0 Ω ″	14
R13,42,312,412,342, 442	QRD146K-181	″	180 Ω ″	6
R37	″ -330	″	33 Ω ″	1
R38	″ -220	″	22 Ω ″	1
R321,421,322,422, 323,423	QVP6A0B-054	V. Resistor	50 kΩ ″	6
R319,419	QVP8A0B-023	″	2 kΩ ″	2
R19,21,23,25,17	″ -055	″	500 kΩ ″	5
C327,427,329,429	QAT3001-006	Trimmer Capacitor	50 pF	4
	*TAA344525-01	P. Circuit Board		1
C301,401	QEW41EA-335	E. Capacitor	3.3μF 25 V	2
C302,402	QCS11HK-471	Ceramic Capacitor	470 pF 50 V	2
C304,404	″ -101	″	100 pF ″	2
C303,403	″ -270	″	27 pF ″	2
C305,405	QEW41AA-107	E. Capacitor	100 μF 10 V	2
C306,406	QEW41EA-475	″	4.7 μF 25 V	2
C307,407,308,408, 330,430,4	QEW41EA-107	″	100 μF ″	7
C321,421	QFM41HJ-222	Mylar Capacitor	0.0022μF	2
C313,413	QEW41EA-475	″	4.7 μF	2
C322,422	QFM41HJ-103	″	0.01 μF	2
C323,423	″ -682	″	0.0068 μF	2
C324,424,325,425	″ -472	″	0.0047 μF	4
C320,420	″ -822	″	0.0082 μF	2
C314,414	QEB41HM-224	LLC. E. Capacitor	0.47 μF 50 V	2
C315,415	QCS11HK-151	Ceramic Capacitor	150 pF ″	2
C326,426	QEW41AA-476	E. Capacitor	4.7 μF 10 V	2
C316,416	QEW41EA-105	″	1 μF 25 V	2
C317,417	QCS11HJ-391	Ceramic Capacitor	390 pF 50 V	2
C318, 418	QFM41HJ-222	″	0.0022 μF ″	2
C319,419	QCS12HJ-151	″	1500 pF 500 V	2
C309, 409, 5, 11, 22	QEW41EA-105	E. Capacitor	1 μF 25 V	5
C312,412,311,411, 310,410,21	″ -335	″	3.3 μF ″	7
C1, 6	″ -106	″	10 μF ″	2
C2	QEW41CA-226	″	220 μF	1
C3, 20	″ -475	″	4.7 μF ″	2
C8, 9	QFM41HJ-822	Mylar Capacitor	0.0082 μF 50 V	2
C7	QFM41HJ-103	″		1
C10	QEW41EA-476	E. Capacitor	47 μF 25 V	1
C12, 13	QFM41HK-272	Mylar Capacitor	0.0027 μF 50 V	2
C14, 15	QFZ0001-472	Polypropylene Capacitor	0.0047 μF 100 V	2
C16, 17	QCS11HK-101	Ceramic Capacitor	100 pF 50 V	2
C18	QEB41HM-105	LLC. E. Capacitor	1 μF	1
C19	QEW41JA-227	E. Capacitor	220 μF	1
L301,401	TAC000324-01	Inductor	18 mH	2
L302,402	TAC000320-07	″ (Variable)	5.6 mH	2
L1	T40442-002	″	1 mH	1
X3,301,401	2SC1327(U)	Transistor		3
X4,5,12,2,307,407	2SC1383(R.S.)	″		6
X302,402,11,303, 403,305,405,308, 408,309,409,6, 7, 8, 9, 10, 13	2SC828(R.S.)	″		17
X1	2SA564(R.S.)	″		1
IC 1	TD3404AP	IC		1
D301,401,302,402, 303,403,304,404	1S188FM	Ge. Diode		8
D9	1S2076A	Si. Diode		1
D1	RD4.3EC	Zener Diode		1
T2	*TAB265401-01	Osc. Coil		1
PG2,3,4,6,8,9	QMC0627-001	Plug		6
PG1, 5	QMC0427-001	″		2
PG7	QMC0327-001	″		1
	QMC0658-001	Connector		6
	QMC0457-001	″		2
	QMC0357-001	″		1

Control Circuit Board Parts

		FF REW	STOP PLAY			PLAY FF REW				PLAY	STOP
X803	B	0.065	0.7	X802	B	0.8	0.8	X805	B	0	0
	C	0	0		C	0.1	0.06		C	30	30
	E	0	0		E	0	0		E	0	0

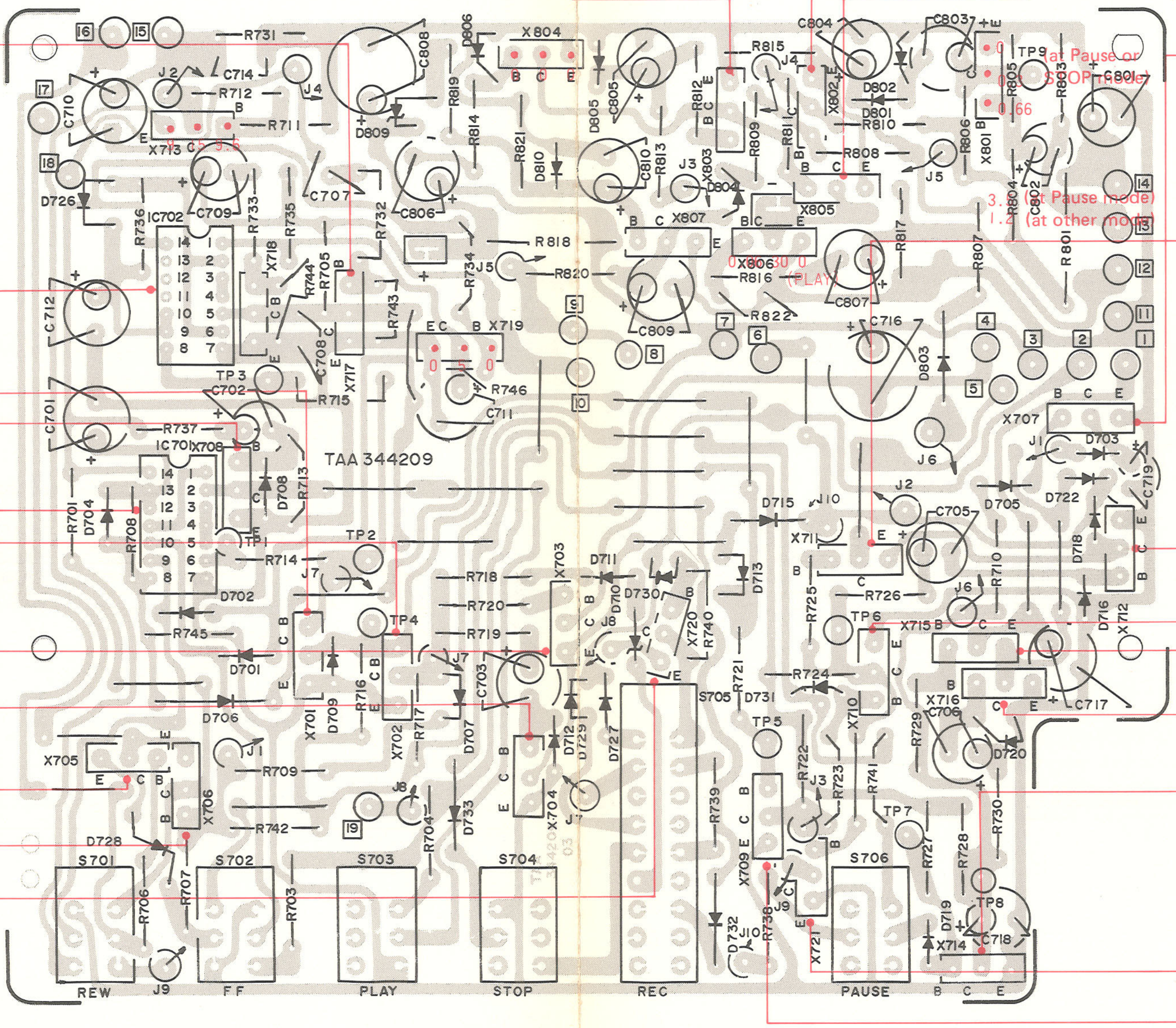
	PLAY STOP	FF REW REC	
B	0.3	0.3	X717
C	5	0	
E	0	0	

	PLAY	STOP FF REW	
B	0	0	X708
C	5	0	
E	0	0	

	PLAY	STOP FF REW	
B	0.7	0.06	X701
C	0	0.75	
E	0	0	
B	0	0.75	X702
C	18	0.04	
E	0	0	
B	16.2	0.04	X703
C	15.5	31	
E	15	0.04	
B	0.02	0	X704
C	15	0.04	
E	0	0	

	REC	PLAY FF REW STOP	
B	14.5	0.4	X720
C	14.5	0.4	
E	14.5	0.4	

	PLAY and PAUSE	FF	PLAY	STOP REW	
B	0.025	0.15	0.3	1.15	X705
C	0.1	10.3	6.3	1.2	
E	0.1	0.15	0.1	1.55	
B	0.65	11	7	1.7	X706
C	10.8	10.3	10.2	1.2	
E	0.1	10.3	6.4	1.2	


0
0.3
0.66
(at Pause or STOP mode)
3.5 (at Pause mode)
1.2 (at other mode)
0 0.06 30 0
(PLAY)
TAA 344209
IC701
IC702
S701
REW
S702
FF
S703
PLAY
S704
STOP
REC
S706
PAUSE

		PLAY and PAUSE	PLAY or STOP
X707	B	0.7	0.06
	C	0.02	7.0
	E	0	0

		STOP	PLAY FF REW
X711	B	0.03	16.0
	C	31	15.7
	E	0.05	15.5
X712	B	0	0.05
	C	0.05	15
	E	0	0
X710	B	0.7	0.02
	C	0.03	17
	E	0	0

		PLAY and PAUSE	PLAY FF REW
X715	B	16.2	0.04
	C	16	31
	E	15.5	0.12
X716	B	0.45	0
	C	15.5	0.13
	E	0	0
X714	B	0.5	0.8
	C	17.0	0.04
	E	0	0

		STOP	PLAY FF REW
X721	B	0.03	0.7
	C	1.5	0
	E	0	0

		STOP	PLAY FF REW
X709	B	0.1	0.7
	C	8	0.02
	E	0	0

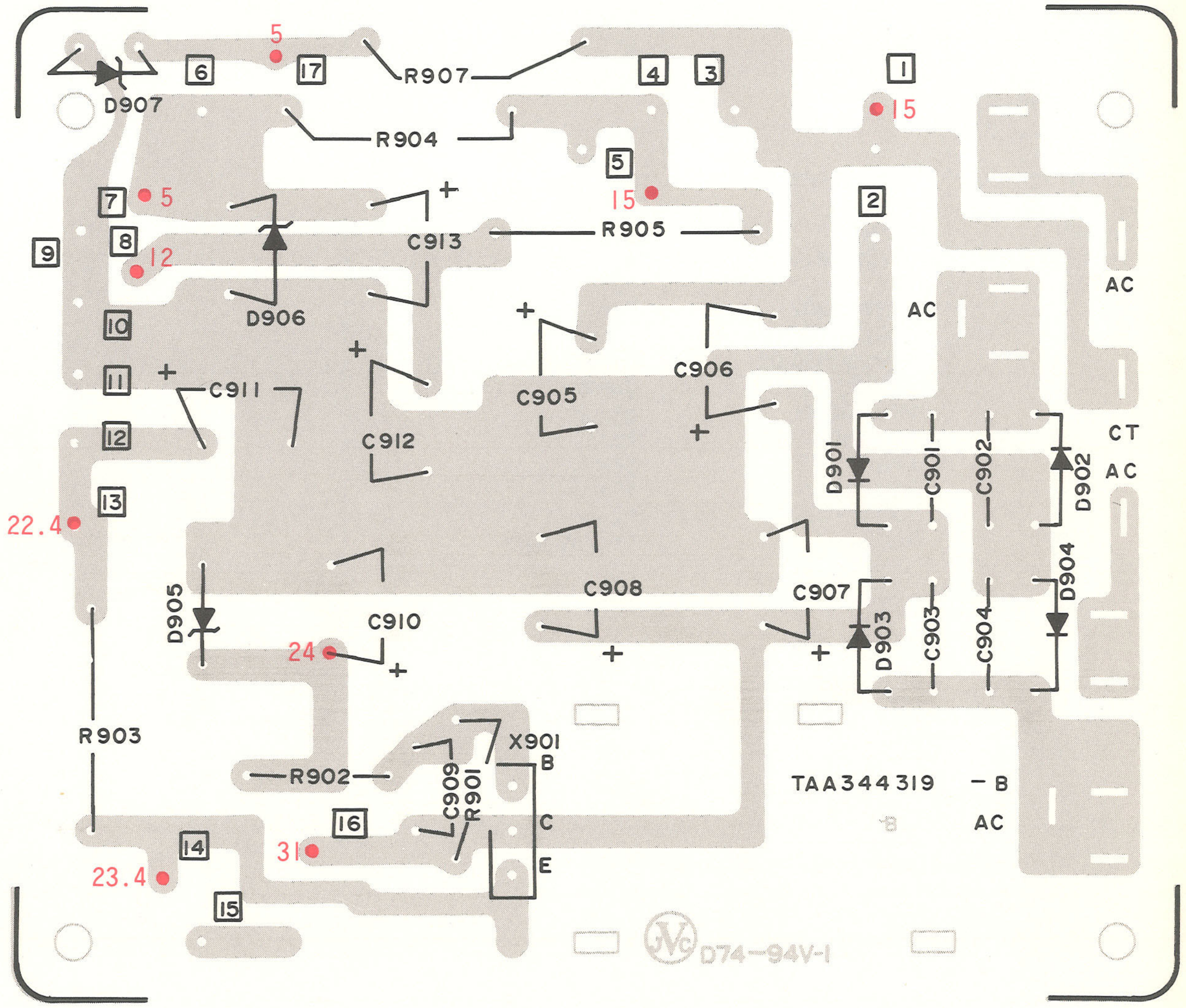
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
IC701	PLAY	3.4	5	0	0	0	3.4	0	0	5	5	3.2	1	1	5
	STOP	3.4	0	4	4	4	0.08	0	0.08	5	5	3.4	1.1	1.1	5
	REW	0.07	0	4	4	4	0.08	0	3.9	0	5	0.08	3.8	3.8	5
	FF	0.07	0	4	4	4	0.08	0	3.9	5	0	0.07	3.8	3.8	5
IC702	AUTO STOP	5	0.1	4	4	5	0.	0	3.5	0.7	0.7	—	—	—	5
	STOP·PLAY	5	4	0.08	0.08	5	4	0	0.06	4	4	—	—	—	5

***All voltages mean value to measure by V.T.V.M., as same as by circuit tester.**

Control Circuit Board Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
S70–705	*QSP0259-103	Push SW Ass'y	for REW, FF, STOP, PLAY, REC	1
S706	*QSP0219-009	Push SW	for PAUSE	1
S707	TDS000334-04	Leaf SW	for MUTING	1
	LPSP2608Z	Screw		1
	NTB2600	Nut		1
	WNS2600N	Washer		2
	*TAA344209-01	Circuit Board (4)		1
R701–705	QRD141K-123	C. Resistor	12 kΩ ¼ W	5
R706,718,733,741	″ -562	″	5.6 kΩ ″	4
R707,715,724,734, 820,729	″ -332	″	3.3 kΩ ″	6
R708,803	″ -152	″	1.5 kΩ ″	2
R710,713,721	″ -333	″	33 kΩ ″	3
R711,714,728	″ -222	″	2.2 kΩ ″	3
R732,808,810,821	″ -102	″	1 kΩ ″	4
R716	″ -183	″	18 kΩ ″	1
R717	QRG016J-122	OMF Resistor	1.2 kΩ	1
R719,726,730	″ -561	″	560 Ω ″	3
R722,727,735	″ -123	″	12 kΩ ″	3
R723, 709	″ -682	″	6.8 kΩ ″	2
R728	QRD121K-222	C. Resistor	2.2 kΩ ½ W	1
R731,817	″ -103	″	10 kΩ ″	2
R736,720,725	″ -821	″	820 Ω ″	3
R737	″ -822	″	8.2 kΩ ″	1
R739,816,740,738	″ -122	″	1.2 kΩ ″	3
R742	″ -563	″	56 kΩ ″	1
R804	″ -184	″	180 kΩ ″	1
R805	″ -393	″	39 kΩ ″	1
R806	″ -562	″	5.6 kΩ ″	1
R807,809,812,813,	″ -472	″	4.7 kΩ ″	4
R811,721	″ -681	″	680 Ω ″	2
R814,819	″ -822	″	8.2 kΩ ″	2
	″ -0R0	″	0 Ω ″	22
R743, 744	QRD143K-563	C. Resistor	56 kΩ ″	2
R745	″ -152	″	1.5 kΩ ″	1
	″ -102	″	1 kΩ ″	1
	″ -681	″	680 Ω ″	1
	″ -101	″	100 Ω ″	1
R801	QRG026J-101	OMF Resistor	100 Ω 2 W	1
R818	″ -680	″	68 Ω ″	1
R815	QRX026J-2R2	″	2.2 Ω ″	1
C701, 712	QEW41AA-477	E. Capacitor	470 μF 10 V	2
C702	″ -336	″	33 μF ″	1
C703,705,706	″ -476	″	47 μF ″	3
C802,809,810,802	QEW41EA-336	″	33 μF ″	4
C707	QFM41HK-103	Mylar Capacitor	0.01 μF 50 V	1
C708, 711	QFM41HK-332	″	0.0033 μF ″	2
C709, 720	QEW41EA-335	E. Capacitor	3.3 μF 25 V	1
C710	QEB41HM-105M	″	1 μF 50 V	1
C713,805,718	QEW41EA-107	″	100 μF 25 V	3
C807	″ -106	″	10 μF ″	1
C716	QEW41HA-227	″	220 μF 50 V	1
C717	QEW41VA-107	″	100 μF ″	1
C719	QEW41CA-336	″	33 μF 16 V	1
C721	QEW41EA-475	E. Capacitor	4.7 μF	1
C804,801	QEW41AA-107	″	100 μF 10 V	2
C806	QEW41VA-107	″	100 μF 35 V	1
C808	QEW41HA-227	″	220 μF 50 V	1
C714	QCS11HK-101	Ceramic Capacitor	100 pF ″	1
X701,702,707–710, 714,717,718,719, 801–804,807,720	2SC828(RS)	Transistor		16
X703,711,805,806, 715	2SC1384(S)	″		5
X704–706,712,713, 716,721	2SC1383(RS)	Transistor		7
IC701,702	TD3400AP	IC		2
D701–709,711,712, 716,720,725–726, 803–806,808,810, 713,727,729	1S2076A	Si. Diode		25
D715,718,722,728, 807	T30155-001	Si. Diode		5
D710, 809	RD10E	Zener Diode		2
D719,801,802,730, 732,733	1S188FM	Ge. Diode		6
	E43727-002	Tab		28
	E40130-001	″		2
	TDP281305-03	DC Solenoid		1
	SPSP2020Z	Screw		1
	WNS2000N	Washer		1
	NTB2000	Nut		1
	LPSP2604Z	Screw		2
	WNS2600N	Washer		2
	T30302-082	Collar		1
	WLS2000	Lock Washer		1

Power Supply Circuit Board Parts


D907
6
17
5
R907
4
3
1
15
R904
5
7
5
15
2
C913
R905
9
8
12
D906
AC
AC
10
C906
C905
11
C911
12
C912
CT
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C901
C902
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13
22.4
C908
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X901
B
R902
C909
R901
TAA344319
-B
16
C
AC
14
31
E
23.4
15
D74-94V-1

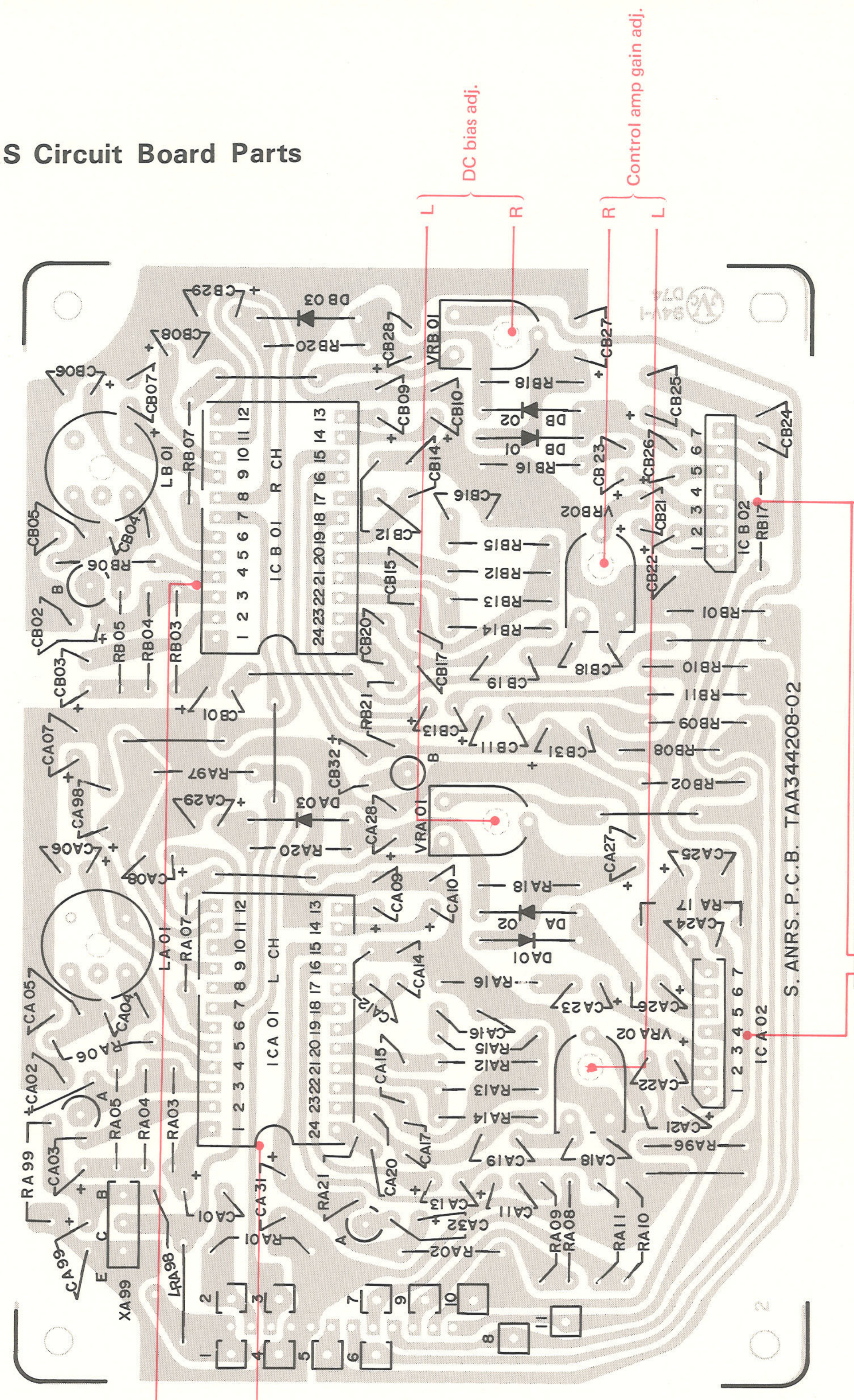
*All voltages mean value to measure by V.T.V.M., as same as by circuit tester.

Power Supply Circuit Board Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	*TAA344319-01	Circuit Board (5)		1
X901	2SC1162	Transistor		1
D901,902,903,904	T30155-001	Si. Diode		4
D905	RD24E	Zener Diode		1
D906, 907	1N4733T5	"		2
C901,902,903,904	QCF12HP-103	Ceramic Capacitor	0.01 µF 50 V	4
C905,906,911	QEW41EA-108	E. Capacitor	1000 µF 25 V	3
C907, 908	QEW41HA-337	"	330 µF 50 V	2
C909	QCS11HK-101	Ceramic Capacitor	100 pF 50 V	1
C910	QEW41EA-337	E. Capacitor	330 µF 25 V	1
C912	QEW41CA-477	"	470 µF 16 V	1
C913	QEW41AA-447	"	470 µF 10 V	1
R901	QRD142K-152	C. Resistor	1.5 kΩ ¼W	1
R902	QRD146K-3R3	"	3.3 Ω "	1
R903	QRX026J-8R2	OMF Resistor	8.2 Ω 2 W	1
R907	QRG036J-560	"	56 Ω 3W	1
R904	QRG026J-560	"	56 Ω 2W	1
	LPSP3008ZS	Screw		1
	TAR27448-01	Heat Sink		1
	E40130-001	Tab		3
	E43727-002	Tab		16
	TAZ001331-02BS	Fuse Holder	KD-95B	4
	TAZ001331-02	"	KD-95A/E	4
	QMF51A2-1R0LBS	Fuse	KD-95B	2
	QMF51A2-1R0	"	KD-95A/E	2

Super ANRS Circuit Board Parts

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
ICA01 ICB01	VTVM	10.0	9.3	10.2	10.2	7.7	2.2	0	0.7	9.0	9.0	0.4	0	0.2	0.8	20	9.0	10.3	9.0	10.3	11.5	11.5	11.5	11.5	16.5
	Tester	7.9	9.3	9.8	7.8	7.7	2.0	0	0.5	8.8	8.8	0.18	0	0.05	0.67	20	9.0	10.3	9.0	10.3	11.5	11.5	11.5	11.5	16.5



		1	2	3	4	5	6	7
ICA02 ICB02	VTVM	11.1	11.1	10.5	0	9.8	20	10.5
	Tester	10.5	11.0	10.5	0	9.8	20	10.5

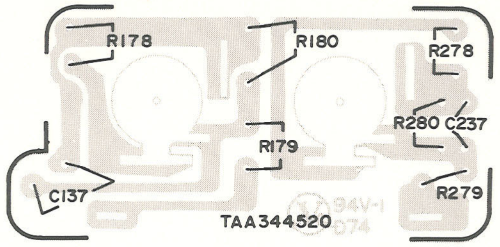
*All voltages mean value to measure by V.T.V.M., as same as by circuit tester.

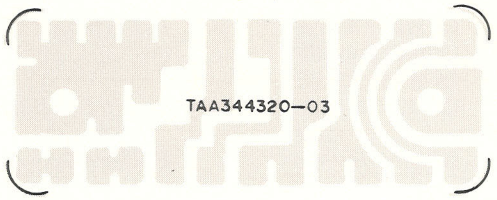
Super ANRS Circuit Board Parts List

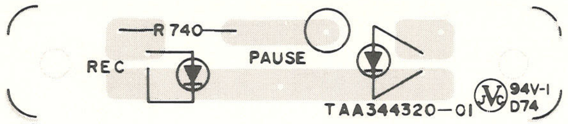
Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	TAA344208-02	Circuit Board (3)		1
RA03,RB03,RA04, RB04, RA96	QRD141K-473	C. Resistor	47 kΩ ¼ W	5
RA05, RB05	〃 -562	〃	5.6 kΩ 〃	2
RA06, RB06	〃 -102	〃	1 kΩ 〃	2
RA07, RB07	〃 -222	〃	2.2 kΩ 〃	2
RA08, RB08	〃 -153	〃	15 kΩ 〃	2
RA09, RB09	〃 -472	〃	4.7 k Ω 〃	4
RA10, RB10	〃 -333	〃	33 kΩ 〃	2
RA11, RB11	〃 -221	〃	220 Ω 〃	2
RA12,RB12,RA13, RB13	〃 -272	〃	270 Ω 〃	4
RA14, RB14	〃 -183	〃	18 kΩ 〃	2
RA15,RB15,RA16, RB16	〃 -680	〃	68 Ω 〃	2
RA18, RB18	〃 -223	〃	22 kΩ 〃	2
RA20, RB20	〃 -103	〃	10 kΩ 〃	2
RA21, RB21	QRD143K-104	〃	100 kΩ 〃	2
RA97	〃 -471	〃	470 Ω 〃	1
	〃 -0R0	〃	0 Ω 〃	8
RA02, RB02	QRD146K-101	〃	100 Ω 〃	2
RA17, RB17	〃 -681	〃	680 Ω 〃	2
CA01, CB01	QEW41EA-105	E. Capacitor	1 μF 25 V	2
CA02, CB02	QEW41CA-336	〃	33 μF 16 V	2
CA03, CB03	QEW41EA-475	〃	4.7 μF 25 V	2
CA04, CB04	QCS11HK-151	Ceramic Capacitor	150 pF 50 V	2
CA05, CB05	〃 -102	〃	0.001 μF 〃	2
CA06,CB06,CA07, CB07,CA08,CB08	QEW41CA-336	E. Capacitor	33 μF 16 V	6
CA09,CB09,CA10, CB10	〃 -476	〃	47 μF	4
CA11,CB11,CA13, CB13	QEW41EA-475	〃	4.7 μF 25 V	4
CA12,CB12,CA14, CB14	QCS11HK-101	Ceramic Capacitor	100 pF 50 V	4
CA15,CB15	QFM41HJ-272	Mylar Capacitor	0.0027 μF 〃	2
CA16,CB16	〃 -273	〃	0.027 μF 〃	2
CA17,CB17	〃 -682	〃	0.0068 μF 〃	2
CA18,CB18	QCS11HK-391	Ceramic Capacitor	390 pF 〃	2
CA19,CB19	〃 -471	〃	470 pF 〃	2
CA20,CB20	〃 -331	〃	330 pF 〃	2
CA21,CB21	QEB41HM-334	LLC E. Capacitor	0.33 μF 〃	2
CA22,CB22,CA23, CB23	QEW41EA-106	E. Capacitor	10 μF 25 V	4
CA24, CB24	QFM41HK-102	Mylar Capacitor	0.001 μF 50 V	2
CA25, CB25	QEW41EA-476	E. Capacitor	47 μF 25 V	2
CA26, CB26	〃 -105	〃	1 μF 〃	2
CA27,CB27,CA32, CB32	QEW41CA-336	〃	33 μF 16 V	4
CA28, CB28	〃 -335	〃	3.3 μF 〃	2
CA29, CB29	QEW41HM-334	LLC E. Capacitor	0.3 μF 50 V	2
CA31, CB31	QEW41EA-107	E. Capacitor	100 μF 25 V	2
CA98	QEW40JA-227	〃	220 μF 6.3 V	1
VRA01,VRB01	QVP8A0B-023	V. Resistor	2 kΩ	2
VRA02,VRB02	〃 -024	〃	20 kΩ	2
LA01, LB01	TAC000320-01	V. Inductor		2
DA01,DB01,DA02, DB02	1S188FM	Ge. Diode		4
DA03, DB03	1S2076A	Si. Diode		2
ICA02, ICB02	TA7140PBC	IC		2
ICA01, ICB01	TAT000351-01	〃	Super ANRS	2
	E43727-002	Tab	Wire Wrapping	11

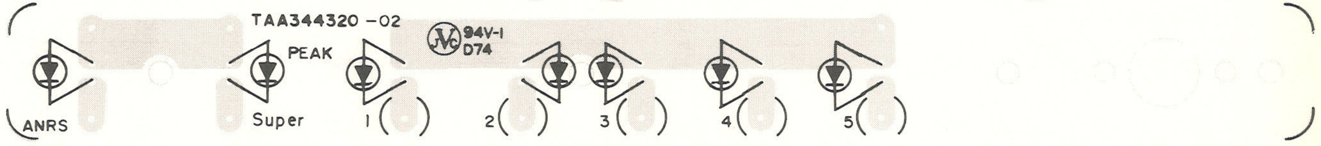
Other Circuit Board Parts

Microphone Jack C. Board


R178
R180
R278
R280
C237
R179
C137
R279
TAA344520
94V-I
D74


Head wire terminal
TAA344320–03


REC. PAUSE Indicator
R 740
REC
PAUSE
TAA344320–01
94V-I
D74


Peak level indicator
TAA344320 –02
94V-I
D74
PEAK
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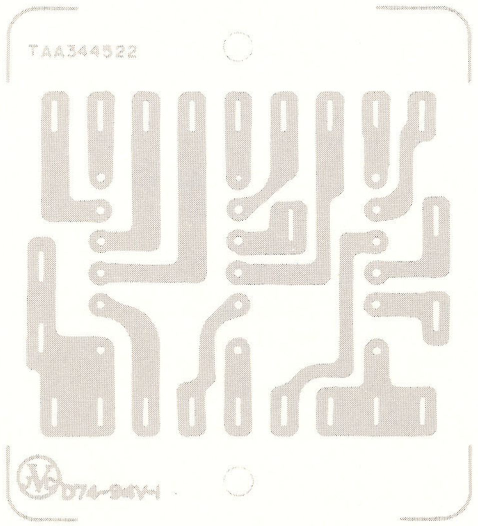
Control Terminal C. Board


TAA344522
D74-94V-I

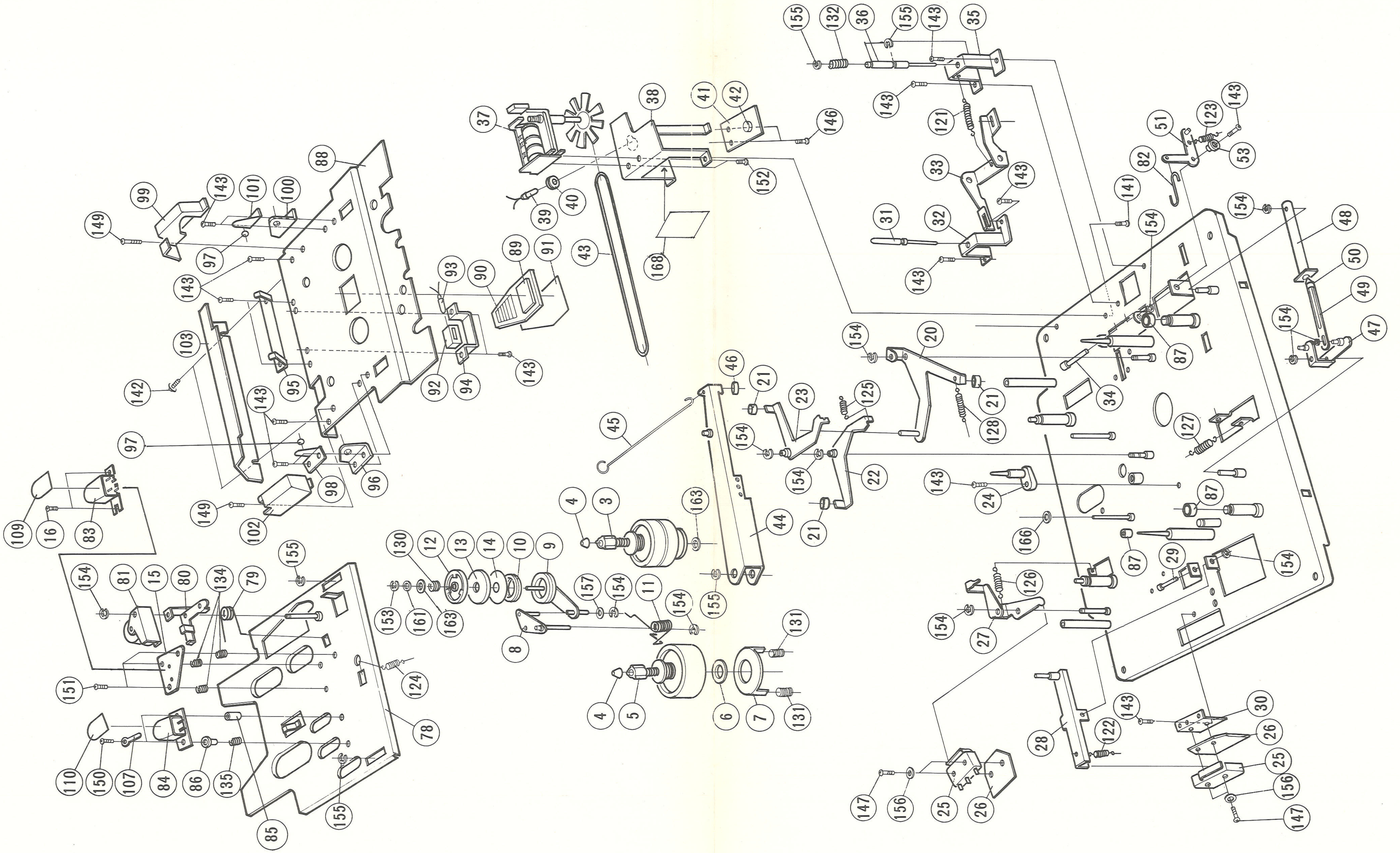
Other Circuit Board Parts List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	*TAA344320-02	Circuit Board	for Peak Level Indicator	1
D1–5	TLR102	LED	RED	5
D6, 7	TLG102	"	GREEN, for ANRS, Super	2
	Y40215-01	Spacer		7
	*TAA344320-01	Circuit Board	for REC, PAUSE Indicator	1
D729	TLR102	LED		1
D730	TLG102	"		1
R740	QRD142K-392	C. Resistor	3.9 kΩ ¼ W	1
	TER305427-01	Spacer		2
	TAA344520-01	Circuit Board	for Microphone Jack	1
R178, 278	QRD143K-102	C. Resistor	1 kΩ ¼ W	2
R179, 279	" -822	"	8.2 kΩ "	2
R180, 280	" -223	"	22 kΩ "	2
C137, 237	QCS11HK-471	Ceramic Capacitor	470 pF	2
	E40130-001	Tap		2
	TAA026432-01	Circuit Board	for Pin Jacks	1
	TAA344320-03	"	for Head	1
	TAA344522-01	"	for Control Terminal	1
	TAA344521	"	for CdS Lamp	1

Mark and Label of circuit board connector

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	TAH000459-01	Mark	for Connector 1	1
	" -02	"	" 2	1
	" -09	"	" 3	1
	" -10	"	" 4	1
	" -11	"	" 5	1
	" -12	"	" 6	1
	" -13	"	" 7	1
	" -14	"	" 8	1
	" -15	"	" 9	1
	" -16	"	" 10	1
	" -17	"	" 11	1
	" -18	"	" 12	1
	" -19	"	" 13	1
	TJL344529-01	Bias Label		1
	TJL344530-01	REC Label		1

Mechanical Component (1)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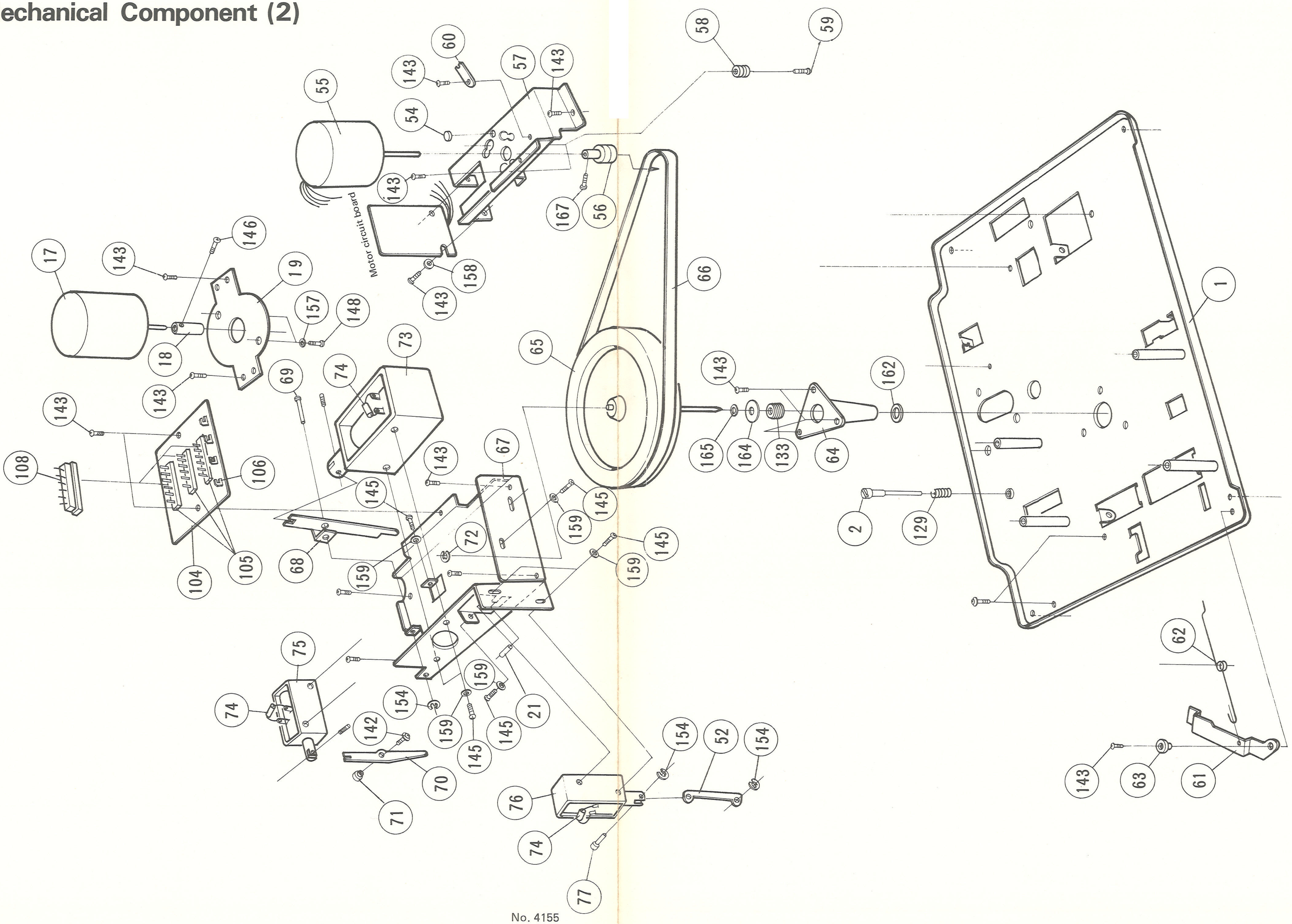
Mechanical Component (2)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Motor circuit board
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Mechanical Component List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1	*TGB344201-0A	Chassis Base Ass'y		1
2	*TFH344415-01	Shaft	for Guide Stud	1
3	*TGP344418-0A	Reel Disk Ass'y		1
4	*TEP357437-01	Reel Cap		2
5	*TGP344420-0A	Reel Disk Ass'y		1
6	T45803-001	Felt		1
7	T47361-001	Back Tension Base		1
8	T47365-00A	Idler Lever Ass'y		1
9	T47371-00B	Idler Arm Ass'y		1
10	T47372-001	Clutch Felt		1
11	*TFW344527-01	Idler Spring		1
12	T47402-00A	Idler Ass'y		1
13	TEK001540-01	Cement Sheet		1
14	TEP001539-01	Friction Disk		1
15	*ZMM074411-01	Head Plate	for REC/PB Head	1
16	SPBP1703N	Screw	″	2
17	m190-00A	DC Motor	for Reel Disk	1
18	T47374-002	Reel Motor Pulley		1
19	*TFB344421-01	Motor Base		1
20	*TGB344423-0A	Connect Lever Ass'y		1
21	T44341-001	Rubber Tire		4
22	*T47381-00B	Brake Arm Ass'y	for Left	1
23	*T47382-00B	Brake Arm Ass'y	for Right	1
24	*TEP344424-01	Cassette Guide		1
25	QSM1S01-015	Micro Switch		1
26	T47430-001	Insulator		2
27	*TFB344425-01	REC Stopper		1
28	*TGB344428-0A	Switch Lever Ass'y		1
29	*TFH344429-01	Pin		1
30	*TFB344430-01	Switch Bracket		1
31	*TFH344431-01	Shaft		1
32	*TFB344432-01	Bracket		1
33	*TFB344433-01	Eject Lever		1
34	*TFH344434-01	Pin	for Eject	1
35	*TFB344435-01	Bracket		1
36	*TFH344436-01	Shaft		1
37	*TGN344301-0B	Counter Ass'y		1
38	*TFB344302-02	Counter Bracket		1
39	T46729-002	Pilot Lamp		1
40	53492-001	Rubber Bushing		1
41	*TAA344521-01	Circuit Board	for CdS Photo Cell	1
42	T45616-001	CdS Photo Cell		1
43	*TEB344466-01	Counter Belt		1
44	*TGB344439-0A	Arm Ass'y	for Slide Base	1
45	*TFW344440-01	Wire (1)		1
46	TER291412-01	Rubber Cushion		1
47	*TGB344443-0A	Pipe Lever Ass'y		1
48	TEP267495-0B	Brake Pipe Ass'y		1
49	TEP267490-23	Brake Shaft		1
50	TER267508-02	"O"-Ring		1
51	*TGB344446-0A	Pause Lever Ass'y		1
52	*TFB344447-01	Pause Bar		1
53	T42105-001	Metal		1
54	TER313570-01	Motor Cushion		1
55	*m1606-00A	DC motor	for Capstan	1
56	*TFH344448-01	Motor Pulley		1
57	*TFB344303-01	Motor Bracket		1
58	TER357465-01	Cushion Rubber		3
59	TFH345468-01	Motor Screw		3
60	*TFB344419-01	Rubber Stopper		1

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
61	*TFB344449-01	Lock Lever		1
62	*TFW344450-01	Wire (2)		1
63	T42105-001	Metal		1
64	T47404-00A	Capstan Metal		1
65	*TEW344304-01	Flywheel Ass'y		1
66	*TEB344451-01	Capstan Belt		1
67	*TFB344305-01	Solenoid Bracket		1
68	*TFB344452-01	Lever	for Slide Base	1
69	*TFH344453-01	Shaft		1
70	*TFB344454-01	Brake Lever		1
71	*TFH344455-01	Collar		1
72	TEP357456-01	Thrust Screw		1
73	*TDP344306-0A	DC Solenoid Ass'y	for Playback	1
74	V06-B	Si. Diode	for Solenoid	3
75	*TDP344307-0B	DC Solenoid Ass'y	for Brake	1
76	*TDP344307-0A	DC Solenoid Ass'y	for Pause	1
77	*TFH344456-01	Solenoid Pin		1
78	*TGB344309-0A	Slide Base Ass'y		1
79	*TFW344458-01	Pinch Roller Spring		1
80	*TFB344459-01	Push Arm		1
81	*TGB344463-0A	Pinch Roller Bracket Ass'y		1
82	*TFW344464-01	Wire (3)	for Pause	1
83	*ZMM074303-0A	REC/PB Head Ass'y		1
84	*THS000356-0A	Erase Head	(Double Gape)	1
85	*T30302-079	Collar		1
86	TFH292402-01	Spring Supporter		1
87	*TER344523-01	Rubber Cushion		3
88	*TFB344310-01	Cassette Holder		1
89	*TEP344467-01	Cassette Indicator		1
90	*TEK344468-01	Cement Sheet		1
91	*TJP344469-01	Sheet		1
92	*TER344470-01	Lamp Rubber		1
93	T48188-002	Pilot Lamp		1
94	*TFP344471-01	RubberBracket		1
95	*TFP344472-01	Spring Plate		1
96	TEP336439-01	Holder		1
97	T41615-007	Steel Ball		2
98	*TFP336440-03	Spring Plate		1
99	TEP336303-01	Cover		1
100	TEP336439-02	Holder		1
101	*TFP336440-04	Spring Plate		1
102	TEP336303-02	Cover		1
103	*TEP344311-01	Plate Cover		1
104	*TAA344522-01	Circuit Board	Control Terminal	1
105	QMC0627-001	Plug	6 Pin	3
106	E40130-001	Tab		23
107	T45640-001	Wire Holder		2
108	QMC0627-001	Connector	for Amp. Wires	3
109	THC037417-01	Head Plate	SA Head for REC/PB Head	1
110	THS000489-01	Head label	for E. Head	1
121	T30300-047	Spring	for Eject	1
122	" -083	"	for Switch Lever	1
123	* " -187	"	for Pause Lever	1
124	" -103	"	for Slide Base	1
125	* " -188	"	for Brake	1
126	* " -184	"	for REC	1
127	* " -185	"	for Arm Ass'y	1
128	* " -186	"	for Connect Lever	1
129	T30301-113	"	for Guide Shaft	1
130	* " -154	"	for Clutch	1

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
131	*T30301-135	Spring	for Back Tension	2
132	* ″ -136	″	for Eject	1
133	* ″ -137	″	for Flywheel	1
134	* ″ -138	″	for REC/PB Head	1
135	* ″ -139	″	for E. Head	1
141	DPSP2606Z	Screw	for Counter Bracket	2
142	DPSP2608Z	″	for Plate Cover, Brake Cover	3
143	LPSP2605Z	″	for Motor Base, Cassette Guide, Switch Bracket, Pause Lever Ass'y, Rubber Bracket, Spring Plate	33
145	LPSP3004ZS	″	for Solenoid	8
146	SPSP2004Z	″	for Reel Motor Pulley, CdS Circuit Board	3
147	SPSP2010N	″	for Micro SW	4
148	SPSP2603Z	″	for Motor Base	2
149	SPSP2614Z	″	for Cover	2
150	SPSX2008N	″	for E. Head	2
151	SHSP2008N	″	for REC/PB Head	3
152	SSSP3006ZS	″	for Counter	2
153	REE1500	"E"-Ring	for Idler	1
154	REE2000	″	for Counter Lever, Pipe Lever, Brake Pipe, Pause Lever Ass'y, Solenoid Shaft, DC Solenoid Ass'y	15
155	REE3000	″	for Arm Ass'y, Eject Shaft, Slide Base	5
156	WSB2000N	Washer	for Micro SW	4
157	WSB2600N	″	for Idler Arm, Motor Base	3
158	WNB2600N	″	for Motor Circuit Board	1
159	WNS3000N	″	for Solenoid	8
161	Q03093-435	″	for Idler	1
162	″ -522	″	for Capstan Shaft	1
163	″ -609	″	for Idler, Reel Disk	2
164	″ -621	″	for Flywheel	1
165	″ -827	″	″	1
166	″ -301	″	for Reel Disk	1
167	SPSP2003Z	Screw	for Motor Pulley	1
168	*TJN000354-21	Cushion		1

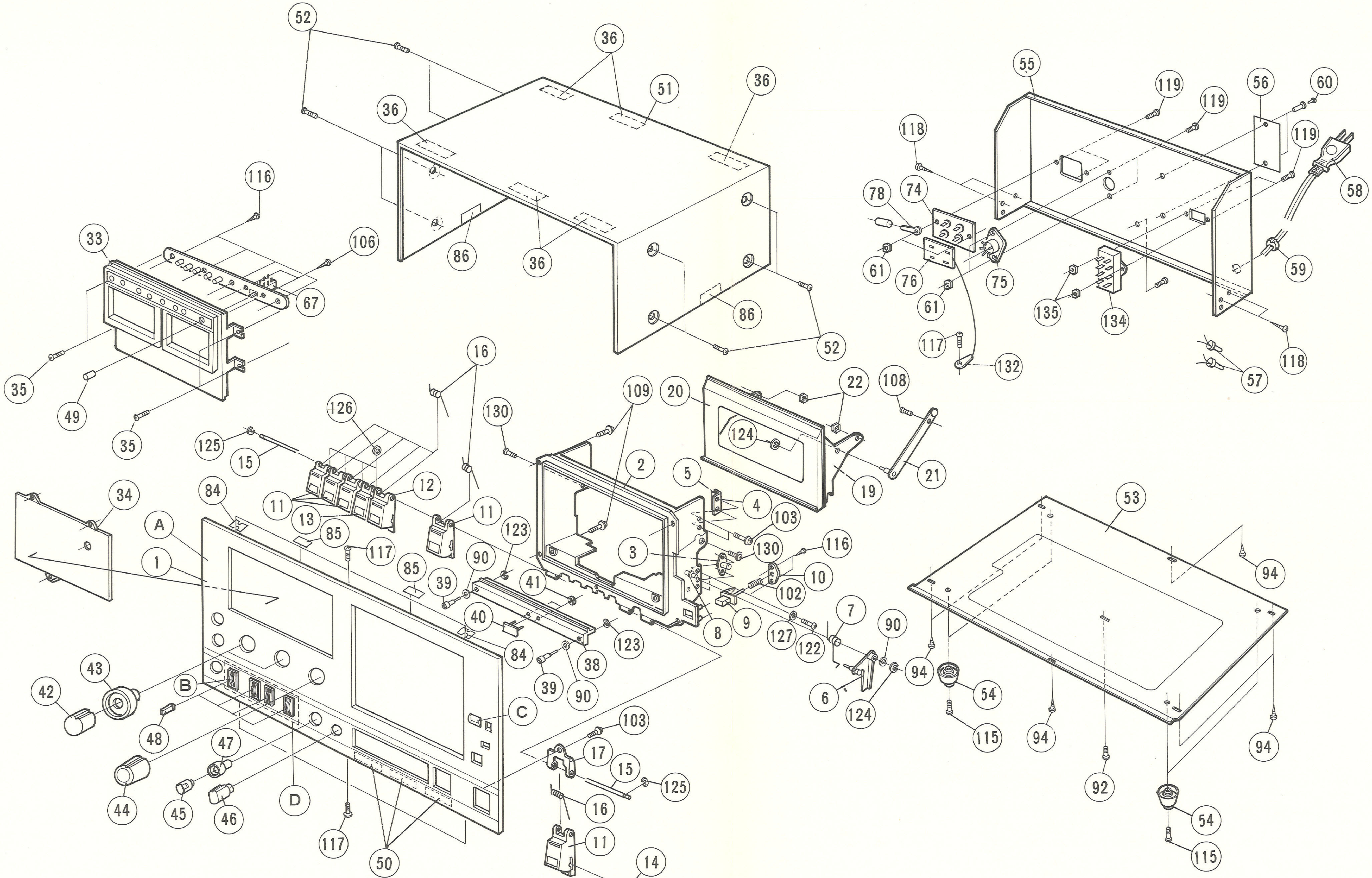
Enclosure Assembly and Electrical Parts List (Except Circuit Board Parts)

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1	*ZCKD95SAY-CBF	Front Panel Ass'y		1
	*TJP344102-01	Front Plate		1
	*TJE344473-02	Ring		4
	*TJE344474-01	Counter Lens		1
	*TJN344511-01	Blind		1
	TJN000354-04	Cushion		3
	TJN294414-04	〃		1
2	TJE344110-01	Lid Escutcheon		1
3	TGB344475-0A	Lock Arm Shaft Ass'y		1
4	TFB344476-01	Lid Stopper		1
5	TJN000354-13	Cushion		1
6	TGP344479-07	Lock Arm Ass'y		1
7	TFW344515-01	Torsion Spring		1
8	RDS3000Z	"CS" Ring	for Lid Escutcheon	1
9	TJK344494-02	Eject Knob		1
10	TFB344512-01	Knob Bracket		1
11	TJB344317-04	Button Knob		5
12	〃 -05	〃		1
13	〃 -06	〃		1
14	TEP344484-01	SW Plate		7
15	TFH344481-01	Shaft		1
16	TFW344482-01	Torsion Spring		7
17	TEP344483-01	Button Holder		1
18	TJN000354-29	Cushion		1
19	TJM344312-0A	Cassette Lid		1
20	TJP344313-01	Lid Cover		1
21	TGB344502-0B	Connecting Plate Ass'y		1
22	TFH344480-01	Collar		2
23	TGB344204-0A	Mecha. Bracket Ass'y	Right	1
24	TGB344498-0A	Damper Lever Ass'y		1
25	TFB344506-01	Spring Hook		1
26	TEP267495-0B	Brake Pipe Ass'y		1
27	TER267508-02	"O"-Ring		1
28	TEP267490-03	Brake Shaft		1
29	TJN344533-02	Blind	for Memory SW	1
30	TJN000354-12	Cushion		1
31	TFB344206-01	Mecha. Bracket	Left	1
32	TDM313314-01	Meter		2
33	TJE344211-01	Meter Escutcheon		1
34	TJE344321-01	Finder		1
35	E49447-003	Shaft	for Meter Escutcheon	4
36	TJN000354-20	Cushion	for Meter	2
37	TJN000354-06	〃	for Meter Bracket	3
38—41	ZCKD95SA-HC	Head Cover Ass'y		1 set
38	TJG344485-01	Head Cover		1
39	TFH344531-01	Screw		2
40	TJL344518-01	Head Mark		1
41	RDS2000S	"CS" Ring		2
42	TJK344486-0A	Knob Ass'y	for MIC/DIN, LINE(L)	2
43	TJK344487-0A	〃	for MIC/DIN, LINE(R)	2
44	TJK344488-0A	〃	for OUTPUT	1
45	TJK344489-02	Knob	for Caribration (L)	1
46	TJK344490-02	〃	for Caribration	1
47	TJK344491-02	〃	for Caribration (R)	1
48	TJK344492-02	〃	for Tape Select	4
49	TJK344524-0A	Push Knob Ass'y	for Peak	1
50	TJN000354-04	Cushion	for Front Plate	1
51	TJC344108-01	Top Cover		1
52	E60942-001	Screw Ass'y		8
53	TFB344109-01	Bottom Cover		1
54	TJF000355-01	Foot		4
55	*TFB344107-01	Rear Bracket	KD-95A/B/E/U	1
	*TFB344107-03	〃	KD-95C/J	1

(To be continued to page 43)

Enclosure Assembly and Electrical Parts (1)

(Except Circuit Board Parts)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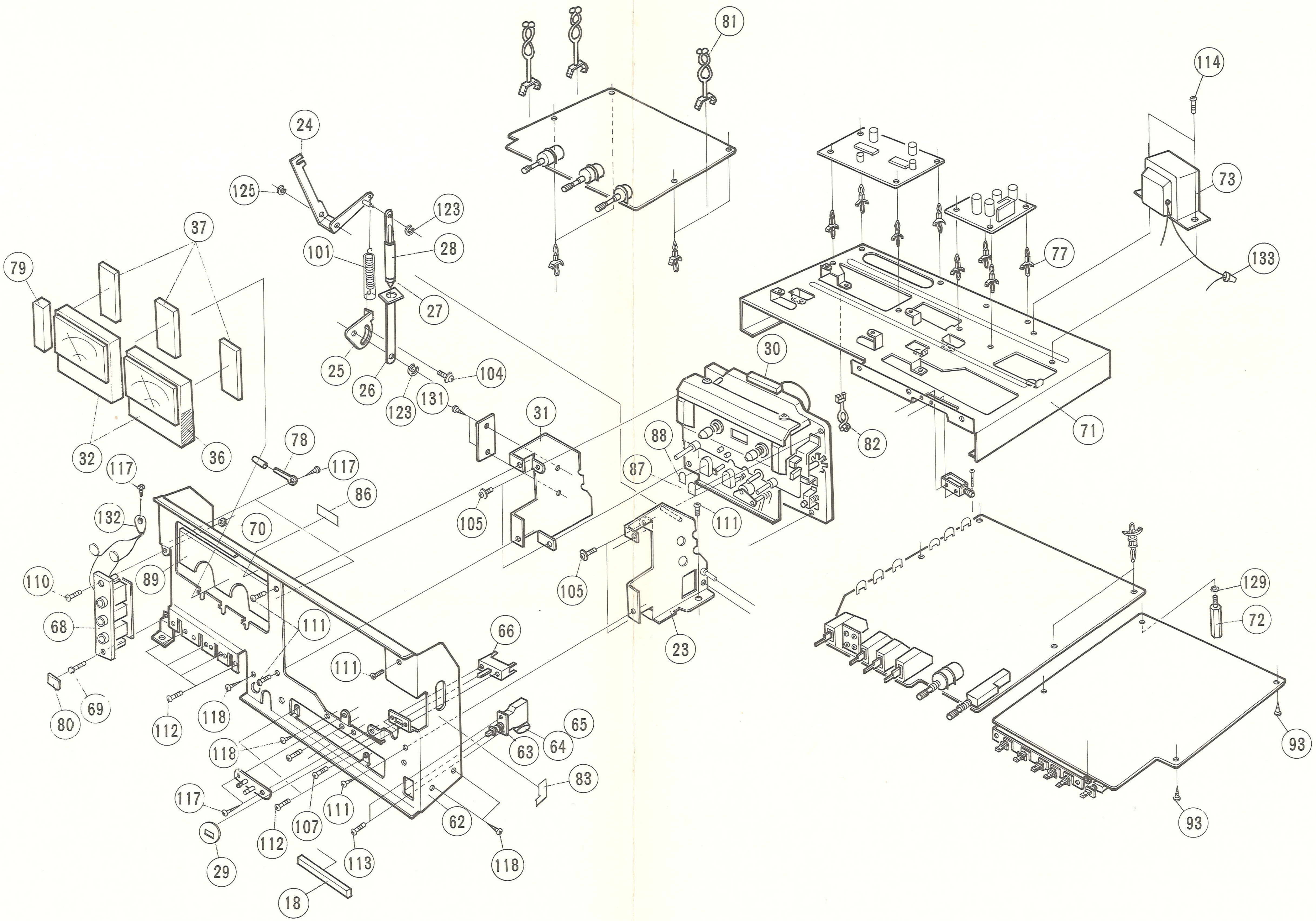
Enclosure Assembly and Electrical Parts (2)

(Except Circuit Board Parts)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(Continued from page 40)

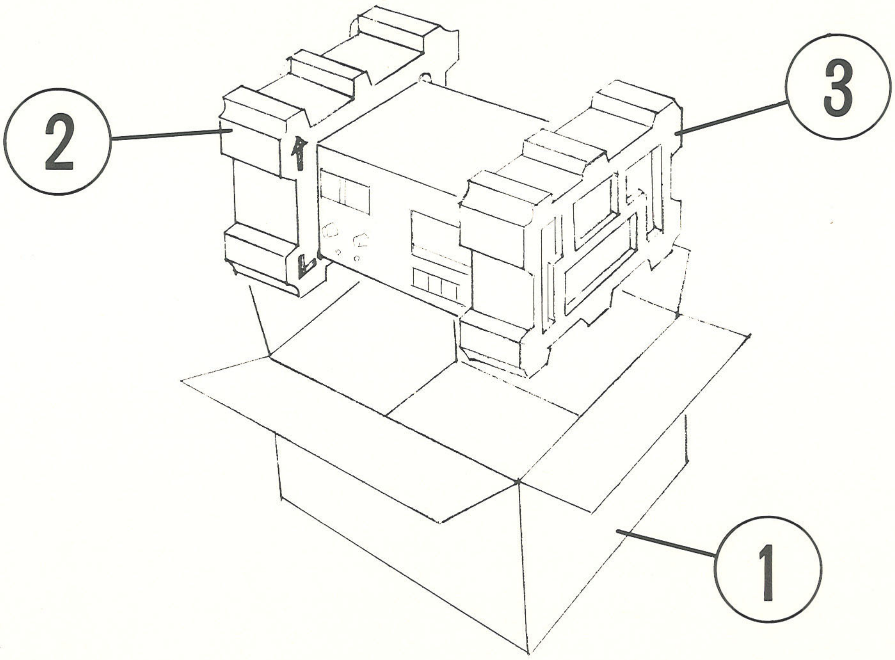
Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
56	*TJL000342-32	Name Plate	KD-95A	1
	*TJL000342-33BS	″	KD-95B	1
	*TJL000342-36	″	KD-95C	1
	*TJL000352-06	″	KD-95F	1
	*TJL000342-34	″	KD-95J	1
	*TJL000342-35	″	KD-95U	1
57	TAW000504-01	Connector	for Power Cord KD-95C/J	2
58	QMP2500-200	Power Cord	KD-95A	1
	QMP9017-007BS	″	KD-95B	1
	QMP1200-244	″	KD-95C/J	1
	QMP3900-183	″	KD-95E	1
	QMP7600-244	″	KD-95U	1
59	QHS3876-162	Cord Stopper	KD-95A/C/E/J/U	1
	QHS3876-162BS	″	KD-95B	1
60	E48729-002	Plastic Rivet	for Name Plate	2
61	NTB3000S	Nut	for DIN Socket	4
62	TGB344103-0B	Front Bracket Ass'y		1
63	QSP2111-011	Push Switch	KD-95A/E S0 (Power)	1
	QSP2111-011BS	″	KD-95B ″	1
	QSP1110-222	″	KD-95C/J ″	1
	QSP2211-001	″	KD-95U ″	1
64	QFH72BM-223	M.M. Capacitor	KD-95C/J	1
	QFH53AM-223	″	KD-95U	1
65	T47047-001	Condenser Cap	KD-95C/J/U	
66	QSS2324-003	Slide Switch	for Memory SW (S-708)	1
67	QSP2210-041	Push SW	for Peak SW (S-8)	1
68	TAJ305307-02	Mic. & H. Phone Jack Ass'y		1
69	TFH344501-01	Supporter		1
70	NTB2600	Nut		1
71	*TGC344105-0F	Amp. Chassis Ass'y		1
72	TFH344495-01	Spacer		1
73	TAP344324-01	Power Trans.	T1 KD-95A/E	1
	*TAP344324-01BS	″	″ KD-95B	1
	*TAP344325-01	″	″ KD-95C/J	1
	*TAP344326-01	″	″ KD-95U	1
74	TAJ331301-03	Pin Jack Ass'y		1
75	QMC0589-003	DIN Socket Ass'y		1
76	TAA026432-01	Circuit Board		1
77	TEP344517-01	P.C. Support	NIFCO	16
78	S4709-002	Wire Clamp		6
79	TJN294414-04	Cushion		1
80	TJN000354-14	″		1
81	QHW1115-001	Nylon Tie		4
82	QHW2115-001	″		1
83	TJN344532-01	Blind	for Front Bracket	1
84	TJS344534-01	Spacer	for Front Panel	2
85	TJN000354-26	Cushion	″	2
86	TJN000354-08	″		1
87	THC037417-01	Head Plate	SA	1
88	THS000489-01	Head Label	Double Gap	1
89	TFB344323-01	Meter Bracket		1
90	Q03093-416	Washer	Head Cover, Lock Arm Shaft	3
91	Q03095-205	″	Head Wire C. Board	1
92	SBSP3006ZS	Screw	Bottom Cover Center	1
93	SBSB3006V	″	Control Circuit Board	3
94	SBSB3005R	″	Bottom Cover	7
101	*T30300-181	Tension Spring		1
102	*T30301-134	Spring		1
103	DPSP2606Z	Screw	for Lid Escutcheon	8
104	DPSP3006ZS	″		1
105	DPSP3008ZS	″		4
106	LPSP2006Z	″	for Peak Switch	2
107	LPSP2604Z	″	for Memory Switch	1
108	LPSP2605C	″	for Connecting Pl. Ass'y	1
109	LPSP2606Z	″	for Lid Escutcheon	1

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
110	LPSP2616Z	″	for H. Phone Jack	1
111	LPSP3006CS	″	for Front Bracket & Circuit Board + Mech.	6
112	LPSP3006VS	″	for Switch	6
113	LPSP3006ZS	″	for Power Switch	2
114	LPSP4008ZS	″	for Foot	4
115	LPSP3010ZS	″	″	4
116	SBSB3010ZS	Tapping Screw	for Peak	6
117	SBSB3006Z	″	for Wire Clamp	6
118	SBSB3008Z	″	for Amp. Chassis + Rear Bracket Amp. Chassis + Front Bracket	13
119	SDBP3006RS	Screw	for Rear Bracket + DIN Slide SW	7
120	SDST3006VS	″	for Control	4
121	SDST3006ZS	″	for Front Bracket, Front Plate, Back Cover	13
122	SPSP2605N	″		2
123	REE2000	"E"-Ring		4
124	REE2500	″		2
125	REE3000	″	for Shaft	3
126	Q03093-503	Washer		4
127	QNS2600N	″	for H. Phone Jack	3
128	WSB2600N	″	for Lid Escutcheon	1
129	WBS3000N	″		1
130	DPSP3010ZS	Screw		2
131	SBSB3008V	″	for Head Wire Circuit Board	2
132	51739-002	Lug		2
133	FG9060-001	Connector		1
134	QSS2325-006	Slide Switch	KD-95A/E	1
	QSS2325-006BS	″	KD-95B	1
	QSS2325-09	″	KD-95U	1
135	NTB3000S	Nut	for Slide Switch KD-95A/B/E	2

Accessories

Parts No.	Parts Name	Remarks	Q'ty
T30046-00B	PIN Cord Ass'y	KD-95A/C/J/U	2
CN-201	DIN Cord	KD-95B/E	1
T47796-00B	Head Cleaning Stick		2
TLT000429-01	Caution Card		1
AP4056A-024	Envelope		1
*T7706EGF	Instruction Book	KD-95A/B/C/E/J/U	1
T46965-002	Demo. Tape		1
BT20029	Warranty Card	KD-95A	1
TJL000443-01	Seal	KD-95B Made in Japan	1
BT20025	Warranty Card	KD-95C	1
TLT279401-01	Caution Card	KD-95E	1
BT20032	Warranty Card	KD-95J	1
TLT052401-01	Warning Label	KD-95A/E	1
TLT052401-01BS	Warning Label	KD-05B Disconnect	1
QZL1002-003BS	Warning Label	KD-95B for Power Cord	1
TLT279402-01	Security S. Label	KD-95E	1
TLJ000477-02	Super ANRS Seal		1
TLJ000476-02	ANRS Seal		1
T44362	CSA Marker	KD-95C	1
T47099-001	Warning Card	KD-95J	1
T46328-003	Caution Label	KD-95A/B	1
T46328-003	Caution Label	KD-95C	1
T46328-004	Caution Label	KD-95E	1
T46328-001	Caution Label	KD-95U	1
BT20013	Guarantee Certificate	KD-95B	1
BT20024B	Special Reply Card	KD-95J	1
E7795-1	EP Mark	KD-95U	1
BT20023	Service Procedure	KD-95J	1
E04056-001	Conti. Plug	KD-95U	1
TLT000503-02	UL/CSA Caution Label	KD-95C/J	2

Packing



Packing Material List

Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
1	TKB344322	Case		1
2	TKC344112-01	Cushion	Left	1
3	TKC344113-01	"	Right	1
	TLE000333-04	Envelope	for set	1
	AP4056A-036	"	for PIN cord and power cord	2
	AP4056A-077	"	for Instruction Book	1

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VICTOR COMPANY OF JAPAN, LIMITED.
RADIO & RECORDING MACHINE DIVISION 804 Futoo-cho, Kohoku-ku, Yokohama, Japan

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Supplementary

SERVICE MANUAL

MODEL

KD-95A/B/C/E/J/U

STEREO CASSETTE DECK

JVC
KD-95 STEREO CASSETTE DECK

No. 4155-3
May 1978

This manual is supplementary of KD-95A/B/C/E/J/U service manual (No. 4155) to improve performance and other reasons.

Please add this comparative table to service manual (No. 4155) and give an order to us for the parts concerned to keep them as spare.

KD-95A/B/C/E/J/U (No. 4155)

Page	Line	Original			NEW				
		Ref. No.	Parts No.	Parts Name	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
		(Mechanical Component)							
37	8	8	T47365-00A	Idler Lever Ass'y	8	VKL4260-00A	Idler Lever Ass'y		1
	9	9	T47371-00B	Idler Arm Ass'y	9	VKL4262-00A	Idler Arm Ass'y		1
	10	10	T47372-001	Clutch Felt	10	T47372-002	Clutch Felt		1
	12	12	T47402-00A	Idler Ass'y	12	VKR4106-00A	Idler Ass'y		1
	13	13	TEK001540-01	Cement Sheet				(Cancel)	
	14	14	TEP001539-01	Friction Disk	14	VKZ4105-001	Clutch Sheet		1
	18	18	T47374-002	Reel Motor Pulley	18	T47374-004	Reel Motor Pulley		1
	24	24	TEP344424-01	Cassette Guide	24	TEP344424-02	Cassette Guide		1
	58	58	TER357465-01	Cushion Rubber	58	TER357465-03	Cushion Rubber		1
	59	59	TFH345468-01	Motor Screw	59	VKZ4109-001	Motor Screw		3
38	4	64	T47404-00A	Capstan Metal	64	VKF3103-00A	Capstan Metal		1
	18	78	TGB344309-0A	Slide Base Ass'y	78	TGB344309-0D	Slide Base Ass'y		1
	22	82	TFW344464-01	Wire (3)	82	TFW344464-02	Wire (3)		1
	47	107	T45640-001	Wire Holder	107	VKZ4001-009	Wire Holder		2
	52	122	T30300-083	Spring	122	T30300-175	Spring	for Switch Lever	1
	60	130	T30301-154	Spring	130	VKW3001-004	Spring	for Clutch	1
39	8	143	LPSP2605Z	Screw (for Motor Base)	143	LPSP2605Z	Screw	(for Motor Base – Cancel)	30
	24	161	Q03093-435	Washer				(Cancel)	
	26	163	" -609	"	163	Q03093-609	Washer	for Idler, Reel Disk (Idler – Add)	3
						LPSP2606Z	Screw	(Addition)	3
		(Enclosure Assembly and Electrical Parts)							
40	24	18	TJN000354-29	Cushion				(Cancel)	
		(Accessories)							
44	57		E04056-001	Conti. Plug		V04062-001	Siemens Plug	KD-95U	1

KD-95A/B/C/E/J/U Supplementary (No. 4155-2)

Page	Line	Original			NEW				
		Ref. No.	Parts No.	Parts Name	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
3		18	T47374-003	Reel Motor Pulley	18	T47374-004	Reel Motor Pulley		1
		58	QMP1200-183	Power Cord	58	QMP1200-244	Power Cord	KD-95C	1
						TJN265559-03	Silencer	for Damper Spring (Addition)	1
						VKL4138-001	Spacer	for REC & Play Switch (Addition)	1

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